STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Bell Telephone Company	:	
	:	
Filing to increase Unbundled Loop and Nonrecurring Rates	:	**ICC Docket No. 02-0864**
	:	

REPLY BRIEF OF THE STAFF OF THE ILLINOIS COMMERCE COMMISSION

PUBLIC VERSION

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The Staff of the Illinois Commerce Commission ("Staff"), by and through its counsel, pursuant to Section 200.800 of the Commission's Rules of Practice (83 Ill. Adm. Code 200.800), respectfully submits its Reply Brief in the above-captioned matter.

The Staff realleges and reincorporates all of the arguments in its Initial Brief in this proceeding as though fully set forth herein. Moreover, in light of the exigency of the briefing schedule imposed, and accompanying time constraints, Staff has not addressed in detail each and every assertion made by the other parties, to which it might have elected to respond, if afforded further time to do so. Accordingly, where Staff does not respond specifically to an assertion or averment made by another party in its Initial Brief, this should not be deemed a waiver of any argument in support of Staff's position, but rather a decision to stand on arguments that Staff has raised in its Initial Brief.

In this Reply Brief, the Illinois Bell Telephone Company will be referred to as "SBC", "SBCI", or "the company." AT&T Communications of Illinois, Inc.; Cimco Communications, Inc., Forte Communications, Inc.; McLeodUSA Telecommunications Services, Inc.; RCN Telecom Services of Illinois, LLC; TDS Metrocom, LLC; WorldCom,

Inc. D/B/A MCI; and XO Illinois, Inc. will be referred to collectively as "the Joint CLECs." The Attorney General of Illinois will be referred to as "the AG", and the Citizens Utility Board as "CUB". The phrase "Initial Brief" will be abbreviated as "IB".

I. Introduction and Summary of Position

II. General Issues

A. Legal Requirements For Setting UNE Rates

B. Economic/Policy Issues Associated With UNE Pricing (Including Benchmarking Analyses and Trends in Telecommunications Cost)

SBC's attempt to justify its UNE rate proposal in Illinois by comparing current UNE rates in the state to those charged by ILECs in other states is a pointless exercise that the Commission should reject. SBC IB at 34. Yet SBC once again maintains that its UNE rates are among the lowest in the country, thereby implying rates in Illinois are under-priced. SBC IB at 3. SBC further argues that Midwest states generally implemented the FCC's TELRIC standard differently than did the rest of the country but that other SBC Midwest states are correcting this problem (i.e. low UNE rates) on a state-by-state basis. SBC IB at 4.

SBC is in effect urging the Commission to correct the TELRIC standard adopted in Illinois by raising UNE rates in the state.

Staff agrees that current UNE rates in Illinois are based upon on old cost data and outdated cost models. That is why Staff urges the Commission to adopt Staff's updated UNE rates, which are based on the latest cost data, latest cost models and the most reasonable input assumptions. However, Staff recommends that the Commission ignore state-to-state comparisons when setting UNE rates. UNE rates charged by

different ILECs are not inherently comparable because the cost of serving customers varies by state, and indeed by area within each state. Staff IB at 34. SBC's service territory in Illinois is relatively densely populated, not mountainous and does not have hard soils that makes loop provisioning in the state less expensive than elsewhere. Id. at 33.

More fundamentally, the Commission should ignore SBC's attempts to bully state regulators into correcting the "problem" of low UNE rates. The Commission should set UNE rates in Illinois as it has always set rates in Illinois – by weighing the evidence presented by parties carefully in the light of existing law and applicable regulations and then making decisions that are in the public interest. Staff Ex. 22.0 at 2. For SBC to suggest that Midwest regulators, and in particular this Commission, have somehow failed to interpret the TELRIC standard properly (while everyone else apparently has succeeded in this task) is an insult to fair minded, thoughtful regulators, Commissioners, and jurists in the state and should be held up to the disdain it deserves.[1] Staff Ex. 22.0 at 2.

[1] Indeed, SBC is essentially blaming others for its own failures. To the extent that SBC perceives its UNE rates to be low, this is in no small part due to SBC's repeated failure to bear its burden of proof and make basic evidentiary showings in prior TELRIC proceedings. *See, e.g.*, *Order* at 92, Illinois Commerce Commission On Its Own Motion: Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues, ICC Docket No. 98-0396 (October 16, 2001) (hereafter "TELRIC II Order") (Commission observes that SBC failed to present evidence in support of its rate proposals); *Order on Reopening* at 11, Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues, ICC Docket No. 98-0396 (April 30, 2002) (hereafter "TELRIC II Order on Reopening") (Commission observes that "[o]ur conclusion relating to the $ 1.02 non-recurring charge was necessitated by the fact that Ameritech had put on no evidence about the charges applicable to new or second lines[.]"); *Order,* ¶16, Illinois Commerce Commission On Its Own Motion v. Illinois Bell Telephone Company: investigation into Tariff Proceeding Providing unbundled Local Switching with Shared Transport, ICC Docket No. 00-0700 (July 12, 2002) (hereafter "TELRIC 2000 Order") ("Although Ameritech was provided [an] opportunity [to do so], it did not even attempt to (continued…)

SBC also argues that current loop prices in Illinois are not sending the right economic signals or adequately compensating SBC Illinois. SBC IB at 22. SBC contends that at current prices SBC Illinois does not even recover its out-of-pocket expenses. Id. According to the FCC, however, UNE rates should be TELRIC based and should reflect the forward-looking costs for an efficient firm. Consequently it is inappropriate to judge the reasonableness of UNE rates by comparing these rates with the historical costs of a former rate of return regulated monopolist. Staff Ex. 2.0 at 9. This is because historical costs are not forwarding looking costs, and because former monopolies are not known for their efficiency. Staff Ex. 2.0 at 9, 21.

Staff has demonstrated that productivity growth in the telecommunications industry is achieved by technological breakthroughs that are used to serve new rather than existing demands. Staff Ex. 22.0 at 6-7. As a result, historical loop costs reflect costs of outdated inefficient technologies and therefore should not be used as the basis for setting forward looking rates. Id. at 8. Furthermore, Staff has also shown that low forward-looking costs are perfectly consistent with high historical costs. Id. at 7. Finally, SBC's expected productivity growth (as set in the company's price cap formula) combined with generally expected inflation rates provide strong a priori evidence for believing SBC's forward looking costs will be lower than its historical costs. Staff Ex. 2.0 at 10.

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demonstrate what, if any, cost it incurs to activate a switch"). The Commission must rely on the evidence adduced in a proceeding, and SBC can blame only itself for its repeated failures and refusals to bear its burden of proof.

III. UNE Loop Recurring Cost Studies

A. Compliance With TELRIC-Generally (Including SBC Illinois Loop Cost Analysis Tool)

B. Major Inputs To Cost Studies

1. Fill Factors

a) Introduction

Although it comes as no surprise, the choice of fills to use in LoopCAT is a major issue that is hotly contested in the initial briefs. As explained in Staff's initial brief, Staff's proxy approach to developing forward looking actual fills is fully consistent with TELRIC principles and should be adopted in this proceeding. Staff IB at 55-60. As described below, the arguments in opposition to Staff's proposal are lacking in any real merit. Moreover, the alternative fill proposals presented by other parties are not consistent with TELRIC and will result in the overrecovery or underrecovery of SBC's forward looking economic costs. Finally, Joint CLECs proposed alternative fill values for Staff's proxy approach are ill conceived and improper.

Although there is no shortage of fill factor arguments, most of the arguments are presented in a void and fail to present the Commission with any relevant context in which to consider the plethora of positions. Indeed, some of the arguments seem to be made out of context so as to mask their own deficiencies and improperly suggest deficiencies in competing fill proposals. Of course, the proper context in which to consider fills is in terms of developing TELRIC costs under the LoopCAT model being used to develop UNE loop rates in this proceeding. Accordingly, before directly responding to specific arguments, Staff will provide a general explanation of the method by which LoopCAT develops costs, examine the role of fill factors under the LoopCAT

methodology, and explain the different role of fill factors in other major cost study models.

b) Fill Factors Use Under LoopCAT and Other Cost Models

A local loop is the communications path from a customer's premises to the serving central office. SBC Ex. 4.0 (Smallwood Direct), Schedule JRS-3 at 2. LoopCAT segregates local loop costs[2] among five *components*. These five components – premises termination, distribution, feeder-distribution interface, feeder and main distribution frame – correspond to the plant facilities from the customer's premises to the central office through which a communications path is achieved. These components are described in SBC's LoopCAT documentation as follows:

- **Premises termination** is the equipment [and drop or entrance cable] at a customer's residence or business where telephone cables are terminated and connected to wiring in the home or business.
- **Distribution** represents the cabling in a local serving area, such as a neighborhood or business in a metropolitan area.
- The **feeder-distribution interface** is a large cabinet that provides cross-connection capabilities between distribution cable pairs and feeder cable pairs.
- **Feeder** represents the large cable systems that originate at SBC central offices and connect to smaller distribution cables at the feeder-distribution interface. Feeder plant may also include fiber cabling and Digital Loop Carrier (DLC) systems.
- The **main distribution frame** is the equipment in the SBC central office where loop cables are terminated prior to connecting them to public or private networks.

Id. (emphasis in original).

[2] Because the "loop" communication path is typically achieved through the use of two wires, a single telephone line is commonly called a pair or copper pair, and loop facilities and related costs are often measured or quantified on a pair (i.e., line) or pair-feet basis.

The plant facilities that constitute the local loop are generally referred to as outside plant. The Federal Communications Commission ("FCC"), in its order addressing the inputs to be used in and for the forward-looking cost model platform adopted for determining federal universal service high-cost support for non-rural carriers, explained the general makeup and operation of outside plant for a current wireline carrier as follows:

> 13. Within the boundaries of each wire center, the wires and other equipment that connect the central office [(where switching equipment is located)] to the customers' premises are known as outside plant. Outside plant can consist of either copper cable or a combination of optical fiber and copper cable, as well as associated electronic equipment. Copper cable generally carries an analog signal that is compatible with most customers' telephone equipment. The range of an analog signal over copper is limited, however, so thicker, more expensive cables or loading coils must be used to carry signals over greater distances. Optical fiber cable carries a digital signal that is incompatible with most customers' telephone equipment, but the quality of a signal carried on optical fiber cable is superior at greater distances when compared to a signal carried on copper wire. Generally, when a neighborhood is located too far from the wire center to be served by copper cables alone, an optical fiber cable will be deployed to a point within the neighborhood, where a piece of electronic equipment will be placed that converts the digital light signal carried on optical fiber cable to an analog, electrical signal that is compatible with customers' telephones. This equipment is known as a digital loop carrier remote terminal, or DLC, which is connected to a serving area interface (SAI) [(called a feeder-distribution interface ("FDI") in SBC's network and LoopCAT)]. From the SAI, copper cables of varying gauge extend to all of the customer premises in the neighborhood. Where the neighborhood is close enough to the wire center to be served entirely on copper cables, copper trunks connect the wire center to the SAI, and copper cables will then connect the SAI to the customers in the serving area. The portion of the loop plant that connects the central office with the SAI or DLC is known as the feeder plant, and the portion that runs from the DLC or SAI throughout the neighborhood is known as the distribution plant.

USF Inputs Order[3] at ¶ 13 (footnotes omitted).

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[3] *In the Matter of Federal-State Joint Board on Universal Service; Forward-Looking Mechanism* (continued…)

LoopCAT is designed to develop the investment costs for a single unit of capacity (i.e., the average investment cost to deploy and provision a **single loop** of each loop type[4] in each Access Area in SBC's service area), to which fill factors are applied to determine the average investment cost per unit of demand (i.e., to account for spare capacity). In other words, LoopCAT does not use fill factors to size outside plant facilities or otherwise plan the network, nor does LoopCAT produce capacity or demand numbers for the TELRIC mandated hypothetical network from which effective fill factors can be measured. Instead, it applies fill factors derived independently of LoopCAT to the calculation of per loop investment costs to account for both capacity and demand in the forward looking network. This methodology – while not explicitly prohibited by TELRIC principles -- differs markedly from the approach followed for forward looking cost models that do plan and size a network – such as the FCC's Synthesis Model.

As noted above, LoopCAT does not actually plan and size a network. While LoopCAT is designed to develop costs that reflect a forward looking network design that is different from the design of SBC's actual loop plant (i.e., ostensibly reflecting forward looking technology and related configuration considerations), it does not develop the

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for High Cost Support for Non-Rural LECs, CC Docket Nos. 96-45; 97-160, Tenth Report And Order, FCC 99-304 (rel. November 2, 1999) ("USF Inputs Order"). The FCC has cautioned parties that its pronouncements regarding universal service cost models were not intended to provide any systematic guidance to states in the area of TELRIC rate-setting. See Staff IB at 112-113; *In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, Notice of Proposed Rulemaking, FCC 03-224 at para. 46 (Released September 15, 2003) ("TELRIC NPRM"). Nevertheless, the FCC's discussion of the forward looking economic cost model discussed in the USF Inputs Order, known as the Synthesis Model, as well as its general description of outside plant, provide useful background information that assists in understanding LoopCAT.

[4] The costs for DS3 loops are developed outside of LoopCAT. See Staff Ex. 5 (Staranczak Direct Adopting Liu) at 4, fn. 2.

total build out costs or model the actual facilities (in terms of quantities, length, size and mix of cable, electronics, terminals, etc.) that would be required to fully deploy outside plant facilities. *See* generally SBC Ex. 4.0 (Smallwood Direct) and Schedule JRS-3. Instead, a data sample for each study area regarding SBC's actual network[5] and various new design assumptions[6] are used to develop (or model) selected network statistics[7] for each loop type and rate zone. These statistics are then input into LoopCAT to enable the calculation of per loop investment costs for the "average subscriber loop" based on the percent occurrence of those facilities in the data sample (under applicable design assumptions)[8] for each loop component. That is, rather than model the total costs of all facilities that would be deployed for a complete reconstructed

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[5] Data reflecting SBC's actual network is used so as to intentionally capture SBC's actual network topology, including customer locations, cable routes, and loop lengths, in developing TELRIC costs. See SBC Ex. 4.0 (Smallwood Direct), Schedule JRS-3 at 6.

[6] The primary new design assumption is to designate loop feeder section lengths in the data sample as fiber feeder facilities rather than copper facilities depending on whether the overall loop length exceeds a specified copper/fiber crossover length. See SBC Ex. 4.0 (Smallwood Direct), Schedule JRS-3 at 15.

[7] Examples of the statistics developed from the design modified data sample that are input into LoopCAT include the following: (1) the average number of pair-feet per loop of various cable types (aerial, buried and underground) and gauges (i.e., wire thickness); (2) the percentage of business and residential loop terminations; and (3) the percentage of loops provisioned over copper feeder facilities as well as the percentage provisioned over fiber facilities with related electronics (i.e., with Next Generation Digital Loop Carriers). See SBC Ex. 4.0 (Smallwood Direct), Schedule JRS-3 at 14-15.

[8] LoopCAT appears to capture its new network design construct for most of its network statistics. One notable exception appears to be cable size data used to determine the average weighted cost per pair foot of various gauge copper cable. Cable size refers to the number of pairs contained within the cable. SBC Ex. 4.0, Schedule JRS-3 at 11. Cable data used to develop the weighted cost of various copper cable sizes was obtained "from company property and inventory records." *Id*. at 20-21. The data used to develop average loop length and implement the new copper/fiber feeder mix is "from SBC's loop engineering databases." *Id*. at 15. Changing the mix of copper and fiber feeder facilities in a network would have the effect of eliminating the copper feeder cables replaced by fiber feeder facilities. Staff is not aware of any modification of the cable size inventory data input into LoopCAT. Thus, LoopCATs use of existing inventory date to calculate the weighted cost of copper cable appears to develop the weighted investment unit cost of copper cable based on the weighted occurrence of cable in the existing network instead of the weighted occurrence of cable under the new design constructs otherwise incorporated into loopCAT. There is no evidence indicating whether this apparent oversight had any appreciable impact on costs.

outside plant network, LoopCAT essentially models the cost of a single loop that is intended to be representative of each and every installation and provisioning scenario for a given loop type (i.e., the average subscriber loop). Although no real world loop would have all of these loop characteristics (e.g., no single loop would be composed of 66% fiber feeder facilities and 34% copper feeder facilities – it would be one or the other), modeling costs in this manner presents one possible approach to determining the average cost of a single loop.

The statistical underpinning of LoopCAT can be seen in the Expanded Summary worksheets for each loop type and rate zone. See e.g., SBC Ex. 4.1 (Smallwood Rebuttal), Schedule JRS-R1 at Tab 7. In these worksheets, the "unit investment" costs developed in LoopCAT (e.g., investment cost per pair-feet for cable, investment cost per pair for premises termination, etc.) are joined with statistical outputs from the data sample to derive the investment cost per loop for each line item.[9] Specifically, each Expanded Summary worksheet contains the per unit investment costs for the cable and equipment associated with each component of the loop and the weighting to be given to these costs in developing the monthly recurring costs for a single average subscriber loop. For example (for a 2 wire analog loop), the cost per pair (i.e., per line) for a premises termination (i.e., drop cable/NID and terminal block) are provided for buried and aerial drops for both business and residential applications. The percent occurrence

[9] The costs for "unit investment" presented in these worksheets reflect the prior application fill factors in the source worksheets used to derive unit investment cost (e.g., in determining cost per pair-feet for cable) for each loop component. Thus, the costs presented in these worksheets represent the cost per unit of estimated demand relative to some estimated level of capacity (as derived through application of fill factors). If each fill factor were set at 1 (i.e., reflecting 100% utilization and one loop for each unit of demand), these worksheets would reflect the direct cost of a single loop. The significance of the manner in which fill factors are developed and applied in LoopCAT will be discussed below.

of each of these items is applied to the unit investment (i.e., cost per unit of measure – in this case per pair) to determine the weighted investment cost per loop for each different provisioning scenario. If the network statistics input into LoopCAT indicate that a residential premises termination with an aerial cable drop occurs for only 10% of the loops for a particular rate zone and loop type, then only 10% of the unit investment cost for that scenario are applied in determining the average investment cost of a single loop. Similarly, if there were a total of 2,000 pair-feet of 19 gauge aerial copper distribution cable in the data sample with 1,000 loops in the sample, then the applicable cost for 2 pair-feet (2,000 / 1,000) of 19 gauge aerial copper distribution cable would be applied.

LoopCAT applies fill factors in developing the unit investment costs that are brought forward to the Expanded Summary worksheet. *See* e.g., IL 2w Analog LoopCAT 02-05.xls at Expanded_Summary Tab, Premises_Termination_Res Tab, Aerial_26_gauge Tab. Unit investment costs are the costs per unit of measure applicable to the facilities for each loop component. For example, the unit investment costs for copper distribution cable are the investment cost per pair foot of copper distribution cable by type (aerial, buried, and underground) and gauge (19, 22, 24 and 26 gauge). There are separate fills factors for each loop component as well as separate fill factors for the different facilities contained within each component. *See Id*.; *see also Id*. at PreProcessFill Tab, User_Input Tab. Thus, after determining the cost per pair foot of 26 gauge aerial copper distribution cable, LoopCAT simply divides that cost by the fill factor for copper distribution cable before bringing that unit investment cost (now

representing the cost per unit of demand) forward to the Expanded Summary worksheet.

The fills utilized in LoopCAT by SBC are the current actual fills as measured in its actual network. SBC Ex. 4.0 (Smallwood Direct) at 9. Because of the manner in which LoopCAT applies fill factors, however, the overall level of fill reflected in the per loop costs generated by LoopCAT *is not the same* as the overall level of fill experienced in SBC's actual network. As noted above, LoopCAT applies fill factors that are specific to a given loop component or facility and also modifies the mix of facilities contained in the data sample[10] utilized to derive network statistics and develop costs. Thus, because LoopCAT (i) changes the mix of piece parts utilized in costing outside plant and (ii) apples different fill factors to each piece part, the resulting overall level of fill reflected in the per loop costs generated by LoopCAT is not the same as the overall level of fill experienced in SBC's actual network. Instead, the level of fill reflected in LoopCAT is the level of fill that would be expected to occur in SBC's actual network if its actual network had been built in accordance with the new network design factored into LoopCAT.[11]

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[10] As discussed earlier, LoopCAT modifies the SBC actual network based data sample to treat feeder lengths that were copper as fiber facilities if the overall loop length exceeds the fiber/copper crossover length.

[11] An analogy may be helpful in explaining this point. Assume a business owned an existing fleet of 20 cars with 10 full size cars that obtained 10 miles per gallon and 10 midsize cars that obtained 30 miles per gallon. This fleet of 20 cars could travel a total of 400 miles on one gallon of gas each -- for an average fleet rating of 20 miles per gallon (400 / 20)). Assume further that this business decided to model a new forward looking efficient fleet with 15 midsize cars and 5 full size cars. Assume further that this business used the actual gas mileage of its existing fleet as inputs into the model. Using the actual gas mileage obtained in its existing fleet in its new gas mileage model, the newly modeled fleet of 20 cars could travel a total of 500 miles on one gallon of gas each -- for an average fleet rating of 25 miles per gallon (500 / 20)). LoopCAT generates this same type of effect by incorporating fills specific to individual network components, and then changing the mix of network components modeled.

LoopCAT's statistical based method of developing and modeling forward looking economic costs on a **per loop** basis needs to be contrasted to the total network design and sizing approach followed in the forward looking economic cost model adopted by the FCC[12] to determine universal service high-cost support for non-rural carriers (i.e., the Synthesis Model and its predecessors). See USF Inputs Order at para. 8. The FCC's USF Inputs Order makes clear that the Synthesis Model actually plans and sizes a network, and initially develops total (as opposed to per loop) costs for such a network:

> 14. The model's estimate of the cost of serving the customers located within a given wire center's boundaries includes the calculation of switch size, the lengths, gauge, and number of copper and fiber cables, and the number of DLCs required. These factors depend, in turn, on how many customers the wire center serves, where the customers are located within the wire center boundaries, and how they are distributed within neighborhoods. * * * In general, the model divides the area served by the wire center into smaller areas known as serving areas. * * * For serving areas sufficiently close to the wire center, copper feeder cable extends from the wire center to a SAI where it is cross-connected to copper distribution cables. If the feeder is fiber, it extends to a DLC terminal in the serving area, which converts optical digital signals to analog signals. Individual circuits from the DLC are cross-connected to copper distribution cables at the adjacent SAI.
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> 18. Once the customer locations have been determined, the model employs a clustering algorithm to group customers into serving areas in an efficient manner that takes into consideration relevant engineering constraints. After identifying efficient serving areas, the model designs outside plant to the customer locations. In doing so, the model employs a number of cost minimization principles designed to determine the most cost-effective technology to be used under a variety of circumstances, such as varying terrain and density.
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[12] *See In the Matter of Federal-State Joint Board on Universal Service*, Fifth Report and Order, CC Docket Nos. 96-45, 97-160, 13 FCC Rcd 21323 (Rel. October 28, 1998) ("*Platform Order"*).

> 83. The model uses several tables to calculate cable costs, based on the cost per foot of cable, which may vary by cable size (i.e., gauge and pair size) and the type of plant (i.e., underground, buried, or aerial). There are four separate tables for copper distribution and feeder cable of two different gauges, and one table for fiber cable. The engineering assumptions and optimizing routines in the model, in conjunction with the input values in the tables, determine which type of cable is used.
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> * * *
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> 85. After the model has grouped customer locations in clusters, it determines, based on cost minimization and engineering considerations, the appropriate technology type for the cluster and the correct size of cables in the distribution network. Every customer location is connected to the closest SAI by copper cable. The copper cable used in the local loop typically is either 24- or 26-gauge copper. Twenty-four gauge copper is thicker and, therefore, is expected to be more expensive than 26-gauge copper. Twenty-four gauge copper also can carry signals greater distances without degradation than 26-gauge copper and, therefore, is used in longer loops. In the model, if the maximum distance from the customer to the SAI is less than or equal to the copper gauge crossover point, then 26-gauge cable is used. Feeder cable is either copper or fiber. Fiber is used for loops that exceed 18,000 feet, the maximum copper loop length permitted in the model, as determined in the *Platform Order*. When fiber is more cost effective, the model will use it to replace copper for loops that are shorter than 18,000 feet.

USF Inputs Order at paras. 14, 18, 83 and 85 (footnotes omitted).

Unlike LoopCAT, the Synthesis Model uses fill factors as inputs into the model to determine the actual size of the network. In other words, the Synthesis Model uses fill factors to design network capacity requirements. The FCC explained that fill factors used as inputs into the *design* process are sometimes called “administrative” fills, whereas the actual fills resulting from a network installed in accordance with those administrative fills (i.e., the fill factors used to calculate cost per unit of demand) are generally known as “effective” fills -- and effective fills are generally lower than administrative fills because cable is only available in discrete sizes:

> We note that the actual fill factor may be lower than the fill factor used to design the network (sometimes referred to as administrative fill), because cable and fiber are available only in certain sizes. For example, assume a neighborhood with 100 households has a current demand of 120 telephones. Dividing the 120-pair demand by an 80 percent administrative fill factor establishes a need for 150 pairs. Cable is not sold, however, in 150-pair units. The company would purchase the smallest cable that is sufficient to provide 150 pairs, which is a 200 pair cable. The fill factor that occurs and is measurable, known as the effective fill, would be the number of pairs needed to meet demand, 120 pairs, divided by the number of pairs installed, 200 pairs, or 60 percent.

USF Inputs Order at para. 186, fn 749; *see also* paras. 194, 195, 205.

In terms of developing TELRIC costs for UNE rates the FCC has clearly indicated that "the per-unit costs associated with a particular element must be derived by dividing the total costs associated *with the element* by a reasonable projection of the actual total *usage of the element*." First Report and Order[13] at para. 682. Because effective fills are based on and reflect the capacity installed in the forward looking network, they properly correspond to the total costs and usage of the element in question (e.g., the cable or facility actually installed in the network) as required by the FCC. Accordingly, it is necessary to use effective fills for calculating TELRIC UNE prices (i.e., they are the fill factors to be used as a divisor of costs per unit of capacity to obtain costs per unit of demand). Administrative fills, on the other hand, are design fills and do not correspond to any particular capacity (installed or otherwise), and as such do not correspond to the costs or demand of the element in question. Therefore, it would be inappropriate to use

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[13] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket Nos. 96-98 and 95-185, First Report and Order, FCC 96-325, 11 FCC Rcd 15499; 1996 FCC LEXIS 4312; 4 Comm. Reg. (P & F) (August 8, 1996 Released; Adopted August 1, 1996) (hereafter, "*First Report and Order*" or "*Local Competition Order*").

administrative fills in calculating TELRIC UNE prices (i.e., in calculating costs per unit of demand).

With these concepts in mind, the shortcomings and deficiencies of the arguments attacking Staff's fill factor proposal and supporting alternative fill factor proposals will become exceedingly clear.

c) Usable Capacity Fill

Joint CLECs' argue that the Commission should adopt "usable capacity fills" in establishing SBC's UNE loop rates. CLEC IB at 48-49, 56. Conceptually, usable capacity fill represents utilization of a network facility at a level equal to its maximum physical capacity less the capacity needed for maintenance, testing and administrative purposes. *Id*. at 48, 56. Thus, as its name implies, usable capacity fill is the maximum usable capacity of a cable or piece of equipment. Joint CLECs also assert that usable capacity fill represents "the *optimal* usage capable of being *sustained* from an engineering perspective." CLEC IB at 56 (emphasis added).

The Joint CLECs acknowledge that sizing a network and determining the total costs of a network so sized are a fundamental component of determining per-unit costs:

> [T]he ILEC is required to size that network consistent with a reasonable projection of its total demand. After having sized the network accordingly (and subsequently developing the total costs for such a network) the ILEC is then required to develop "per-unit costs" by dividing its total network costs by the projection of total demand used originally to size the network.

CLEC IB at 57. The Joint CLECs then suggest that their usable capacity fill proposal complies with TELRIC requirements as follows:

> Because the ILEC's redesigned forward-looking network will include only the latest technology (capable of being deployed very modularly), and because the ILEC will size the network based on a known quantity of

> demand (*i.e.*, the projection of its total demand), the only constraints that keep the ILEC from building the (hypothetical) forward-looking network with nearly perfect (*i.e.*, 100%) utilization of capacity are the maintenance, testing and administration requirements that necessitate that some capacity be set aside for these purposes. Thus, "usable capacity" fill factors represent the most reasonable interpretation of the FCC's fill factor requirements for TELRIC studies. (AT&T/Joint CLEC Ex. 1.0, pp. 196-197)

Id.

The Joint CLECs also quote the FCC's directive that per unit costs "must be derived by dividing the total costs associated with the element by a reasonable projection of the actual total usage of the element," and contend that "the 'actual total usage' referred to in ¶682 [of the Local Competition Order] is the demand that must be considered in developing per-unit costs, not the actual level of fill or utilization." CLEC IB at 57-58. Joint CLECs then appear to depart from or ignore their acknowledgement that developing per-unit TELRIC costs necessarily requires one to model or assess the capacity (i.e., size) of the forward looking network that is being reconstructed, and instead contend that fill factors require "a calculation of the actual demand divided by the most efficient amount of network capacity required to support it." *Id*. at 58. Having subtly redefined the FCC's requirements, Joint CLECs argue as follows:

> That is exactly what the "usable capacity" fill factors represent – the most efficient (complete) utilization of the network, with the network's capacity fully utilized to serve demand except for the capacity needed to be kept aside (in accordance with sound engineering and economic guidelines) for maintenance, testing and administrative purposes. (AT&T/Joint CLEC Ex. 1.2, p. 74)

CLEC IB at 58.

Joint CLECs usable capacity fill proposal is the most flawed and deficient proposal in this proceeding. Indeed, this proposal suffers from such a large number of significant faults that it calls into question the reasonableness of Joint CLECs insistence

on making this argument. Staff has already explained in its initial brief the primary problems with Joint CLECs proposal (including prior rejection by the Commission in Dockets 96-0486/0569 Consolidated ("TELRIC I Proceeding")), and those arguments will not be repeated here. *See* Staff IB at 46-54. Rather, Staff will respond to the specific points raised in Joint CLECs initial brief, and address the fundamental theoretical deficiencies of the usable capacity fill proposal.

First, Joint CLECs' use of the terms "optimal" and "sustained" in connection with usable capacity fill borders on the misleading. *See* CLEC IB at 56. Although usage of cable or equipment at the full amount of its usable capacity is clearly the *maximum* level of fill that can be achieved on that facility from an engineering perspective (and in that narrow sense might be thought of as an optimal usage), it is entirely improper to suggest that usage at that level is the best or most cost efficient usage (or fill) level. It might be possible to put 12 ounces of hot coffee in a 12 ounce mug (i.e., to fill it to its maximum usable capacity), but it is hardly a good idea because it will require perfect handling to avoid spills. Here, Joint CLECs own arguments demonstrate that utilization of loop plant at its maximum usable capacity is clearly less than optimal (i.e., not conceptually representative of the fill that would be achieved in a forward looking, least cost network incorporating the most efficient design and technology). Joint CLECs acknowledge that "target fill factors will be *lower than* . . . usable capacity fill factors[,]" and further acknowledge that at usage levels above target fill[14] "it would be more cost-efficient for the carrier to supplement its network (add new capacity) rather than to increase the amount of utilization [(i.e., usage)] on its existing facilities." CLEC IB at 63

[14] Usable capacity fill would be the maximum usage level above target fill that could be achieved.

(emphasis added). A fill proposal that, by definition, advocates a level of usage above the maximum cost-efficient usage is clearly unacceptable and not TELRIC compliant.

Similarly, it is improper to suggest that usage of a facility or cable at its maximum usable capacity is generally achievable or sustainable. Usage of cable or equipment at its maximum usable capacity is physically possible and may occur from time to time in a network as demand grows over time. But to assert as an absolute matter that usage at maximum usable capacity is achievable and sustainable completely ignores the effect of cable and equipment sizing in constructing a network. As discussed in Section III.B.1.b) above, cable (as well as equipment) comes in a limited number of discrete sizes. In building or modeling a network, it is necessary to choose and install a bundle of size greater than or equal to the applicable demand. *See* USF Inputs Order at para. 186, fn 749; see also paras. 194, 195, 205; Tr. 1822-1823. Thus, it is generally not possible to install equipment and cable so as to perfectly match demand and capacity requirements. As a result, even if a network were built based on the usable capacity fill concept (i.e., by designing the network with just enough capacity to meet demand plus the capacity needed for maintenance, testing and administrative purposes), the effective or actual fill for the network so modeled or built would be lower than the usable capacity fills used to design the network. This occurs because it is virtually impossible to install capacity to perfectly match demand even if one engineers capacity to perfectly match demand. It also follows, then, that Joint CLECs assertion that "the only constraints that keep the ILEC from building the (hypothetical) forward-looking network with nearly perfect (*i.e.*, 100%) utilization of capacity are the maintenance, testing and administration requirements" is simply not true. See CLEC IB at 57.

Even if Joint CLECs had not chosen to ignore inherent constraints in building and modeling a network, they also got it wrong at a conceptual level. Joint CLECs erroneous assertion that the hypothetical, forward looking network could be built to achieve utilization at maximum usable capacity was premised on the assertion that "the ILEC will size the network based on a known quantity of demand (*i.e.*, the projection of its total demand)." CLEC IB at 57. Staff explained in its initial brief that if "known quantity of demand" refers to demand at a future point in time, this assertion improperly assumes that demand is fixed[15] or ignores that outside plant consists mainly of fixed and sunk costs.[16] Staff IB at 49-50. It now appears that Joint CLECs might also mean that the hypothetical network would be sized to only accommodate the demand that exists today plus the capacity required for maintenance, testing and administration purposes. If so, this premise is directly contrary to TELRIC principles. In the Local Competition Order, the FCC made clear that "the reconstructed local network will employ the most efficient technology for *reasonably foreseeable capacity requirements*." First Report and Order at para. 685. Indeed, Joint CLECs elsewhere acknowledge that the Local Competition Order requires the network to be sized to meet reasonably foreseeable demand. CLEC IB at 59. Therefore, TELRIC does not require the design of the hypothetical, forward looking network to be limited to the demand that exists today. Accordingly, not only do Joint CLECs wrongfully assert that a network can be

[15] To maintain the network at maximum usable capacity the current demand would need to be equal to the future demand to which the network was sized.

[16] The assumption seemed to be that maximum usable capacity could be achieved because the network could be resized instantaneously to meet any changes in demand. Because installing outside plant typically involves tearing up streets and sidewalks and driveways (i.e., fixed and sunk costs), this is not the case.

modeled or built to attain usable capacity fill, they also fail to provide any logical or rational basis to support their underlying assertion that an ILEC can or must size its network based on a level of demand that – if the network could be sized accordingly -- would achieve usable capacity fill.

There are also several practical and policy issues with Joint CLECs usable capacity fill proposal. Under Joint CLECs' usable capacity fill proposal, 100% of the capacity deployed beyond what is reserved or used for maintenance, testing and administrative ("MTA") purposes is utilized to provide services. AT&T/Joint CLECs Ex. 1.0P (Starkey/Fischer Direct) at 197; Tr. at 1820-1821. That is, the network design reflected by Joint CLECs' usable capacity fill proposal requires a perfect network utilization rate of 100% (working plus MTA pairs). This proposal allows for absolutely no spare capacity to accommodate growth, short-term or long-term. As a result, Joint CLECs' usable capacity fill proposal and their supporting arguments are seriously flawed. There is no rational basis for setting UNE rates at a level that contemplates zero spare capacity for customer growth. Clearly, Joint CLECs would not suggest that SBC can generally respond to customer service order requests for new service by advising that it has no capacity to comply with such requests. It is inconsistent and improper to propose that UNE rates be established on the same underlying assumption that Joint CLECs would reject in any other context.

Neither sound engineering guidelines nor sound economic principles allow loop facilities to be sized to accommodate exact demand. SBC (or any carrier), when designing a serving or distribution area, would not know with certainty what the materialized demand would be for this distribution area. It could not possibly build or

construct a distribution area in such a way that 100% of its deployed capacity (beyond what is required for administrative, maintenance and testing purposes) would be utilized to provide services. Tr. at 1920-1921. Similarly, neither sound engineering guidelines nor economic principles require loop facilities to be constantly sized or resized. Demand typically does not stay at a constant level. Rather, it fluctuates over time. In order to maintain Joint CLECs' perfect utilization rate of 100%, SBC would have to "remove" loop facilities whenever demand decreases, and SBC would also have to reinforce its loop facilities whenever demand increases. As Staff has discussed, loop deployment involves significant fixed costs. Staff Ex. 17.0 (Liu Rebuttal) at 26-27; Staff Ex. 34.0 (Liu Surrebuttal) at 15. These fixed costs are one of the key reasons (if not the only one) behind the existence of spare loop facilities in SBC's (or any carriers') network.

Accordingly, an efficient network design would engineer spare capacity to accommodate future demand growth and to account for the uncertainty in demand. To reinforce loop facilities whenever there is an increase in demand or unexpected demand would dramatically increase the costs of the network. It would, in Mr. White's words, drive SBC's network costs "through the ceiling". Tr. at 665. It also would prevent SBC from fulfilling its regulatory obligations such as the mandatory service quality standard for installation (within 5 days of the request 90% of the time) and repair (within 24 hours of the request 95% of the time). *See* **Administrative Code Part 730**; *see also* Tr. 654. Joint CLECs' "engineering design," which would require that SBC maintain its network at the perfect network utilization rate (100%), would prevent SBC from fulfilling its regulatory obligations and thus cannot be considered as socially beneficial or proper.

Joint CLECs address the potential argument that their proposal does not allow spare or unused capacity to serve what they label as long term or future ultimate demand. CLEC IB at 58. Having failed initially to support their proposal, it is simply not necessary to reach this potential secondary issue to reject Joint CLECs' proposal. However, Joint CLECs assertion that the FCC made clear in the USF Inputs Order and TELRIC NPRM that fill factors require consideration of "current demand" requires some discussion. *Id*. at 59. First, as discussed above, the fill factors utilized in the USF Inputs Order were administrative fills. USF Inputs Order at para. 186, fn 749; *see also Id*. at paras. 194, 195, and 205. Thus, the fills discussed by the FCC in the USF Inputs Order are simply not comparable to Joint CLECs proposal to adopt usable capacity fill values as effective fills to determine costs per unit of demand. As indicated in the USF Inputs Order, administrative fills produce lower effective fills as a result of the discrete number of cable sizes available to install in a network (i.e., breakage). *Id*. Further, the "current demand" based input fills approved by the FCC in the USF Inputs Order "range from 50 percent in the lowest density zone to 75 percent in the highest density zone for distribution cable sizing fill factors . . . ." *Id*. at para. 188, fn. 785, and para. 202; see also Virginia Arbitration Rate Order[17] at para 250 (footnotes omitted) ("AT&T/WorldCom use target [input] fill factors for distribution cable of between 50 and 75 percent, with an effective fill averaged across density zones of 52.5 percent. These target fills are the

[17] In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration, CC Docket No. 00-218; and In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., CC Docket No. 00-251, Memorandum Opinion and Order, DA 03-2738 (Rel. August 29, 2003) (hereafter "Virginia Arbitration Rate Order").

same fill factors that the Commission adopted in the Inputs Order."). The fill values adopted by the FCC are comparable to SBC's administrative design fills and produce effective fills comparable to Staff's proposed proxy fills.[18]

Joint CLECs also raise various arguments regarding consistency with the fills currently utilized for LRSIC studies. CLEC IB at 59-62. All of Joint CLECs arguments to the effect that SBCI uses the same network to provision UNEs and retail services raise improper embedded cost arguments. TELRIC requires use of economic costs of a hypothetical efficient carrier. Accordingly, any comparison of actual costs in the UNE and retail environment is inapposite. Similarly, Joint CLECs appear to ignore the fact that LRSIC uses usable capacity fill to set a price floor whereas TELRIC sets actual rates. Finally, as noted in Staff's initial brief, it will be more appropriate to adopt a proper TELRIC methodology and, if desired by the Commission, subsequently consider consistency of the TELRIC and LRSIC standards in a separate proceeding.

Finally, from a cost model perspective, Joint CLECs' usable capacity fill proposal is a proposal for the Commission to adopt an administrative fill (i.e., a fill that could only be an input into designing a network) as an effective fill (the fill that would be

[18] Dividing SBC's current working lines per premises (i.e., current demand per premises) of ***BEGIN CONF XXXXXX END CONF*** in Access Area A, ***BEGIN CONF XXXXXX END CONF*** in Access Area B, ***BEGIN CONF XXXXXX END CONF*** in Access Area C, and *** BEGIN CONF XXXXXX END CONF*** statewide by its engineering installation guideline of ***BEGIN CONF XXXX END CONF*** lines per premises translates into administrative fill factors of ***BEGIN CONF XXXXXXXXXXX for Access Area A, XXXXXXXXXXX for Access Area B, XXXXXXXXXX for Access Area C, and XXXXXXXXXX statewide END CONF***. Staff Ex. 34 (Liu Surrebuttal) at 7. Of course, the effective fills produced after installing capacity in accordance with such guidelines would be lower due to breakage. When considered in this light, Staff's adjusted effective distribution fills of ***BEGIN CONF XXXXX% for Access Area A, XXXXX% for Access Area B and XXXXX% for Access Area C END CONF*** are generally comparable to the fill factors adopted by the FCC in the USF Inputs Order and Virginia Arbitration Rate Order.

measurable based on installed capacity) for developing UNE prices. Usable capacity fill is a concept rather than a measurable relationship and bears no relationship to a modeled or constructed network, or to a specific level of modeled or constructed capacity. As such, it is not a fill concept consistent with the FCC's TELRIC principles for developing per-loop costs.

d) Target Fill

Joint CLECs argue that the Commission should adopt the "target fills" established by the Commission in the TELRIC I Proceeding if their usable capacity fill proposal is not adopted. CLEC IB at 48, 62-66. Joint CLECs state that these target fills "represent the point of network utilization at which it becomes more cost effective for SBC to install new capacity to meet growth in demand rather than to continue to fill existing facilities." *Id*. at 48, 62-63. Although target fills have an efficiency component, they are not appropriate for TELRIC for a several reasons.

First, as noted in Staff's initial brief, target fill is not the fill level achieved in an efficient, forward looking network. Staff IB at 54; Staff Ex. 17 (Liu Rebuttal to CLECs) at 8. Rather, target fill is the fill level at which plant relief occurs for segments of the network. Tr. at 935. As such, target fill is not representative of the network capacity that would be achieved in an efficient, forward looking network, nor is it representative of a projection of forward looking actual fill. Accordingly, target fill should not be used for establishing TELRIC costs and setting UNE rates.

Second, target fill is an administrative fill rather than an effective fill achieved in a network. As such, it is not appropriate under TELRIC principles. That is, even if it were appropriate to use target fill values to design a network, the effective fill that would result

from so designing a network (and that would be appropriate for setting TELRIC costs) would be lower than the target fills proposed in this proceeding by various parties.

e) Actual Fills

Because much of the debate over fill factors focuses on SBC's actual fill factors or adjustments to those fill factors, Staff will briefly review how SBC's actual fill factors were derived. SBC contends that its current actual fills constitute a reasonable projection of the total actual usage of the network elements at issue in this proceeding. SBC Ex. 4.0 (Smallwood Direct) at 9. The "actual" fills used by SBC in the UNE loop studies for high capacity loops provisioned over fiber (e.g., DS1 and DS3) were based on estimates obtained from subject matter experts ("SMEs"). *Id*. at 10. The data used to calculate actual fills used in the low capacity UNE loop studies (e.g., 2-wire analog, 4-wire analog, 2-wire digital, etc.) was obtained from SBC's Loop Engineering Information System ("LEIS") database. *Id*. at 9. Specifically, fill factors were developed based on utilization statistics from LEIS captured in the Wirecenter Statistics ("WCSTATS") database. *Id*. at 10. For cable, fill factors were calculated by dividing the number of working cable pairs by the number of usable pairs (available less uncommitted). *Id*. For DLC plug-ins, fill factors were calculated by dividing working channels (revenue producing) by equipped channels. *Id*. For DLC chassis, fill factors were calculated by dividing working channels by usable channels (available less uncommitted).

SBC disagrees with Staff's position that SBC's actual fills must be adjusted for excessive capacity attributable to *ex post* inefficiency before they can be considered reasonably representative of the capacity and demand that would occur under in the forward looking, efficient network mandated under TELRIC. SBC claims it has

engineered an efficient amount of spare capacity into its network, and that its actual network has been efficiently designed and deployed. SBC IB at 39. SBC further maintains that its engineers use rigorous planning methods to ensure that facilities are installed in a timely and economical manner. *Id*. Finally SBC alleges there is no evidence that SBC Illinois, or any other carrier, would depart from these network design practices in a forward-looking environment. *Id*. Spare capacity, according to SBC, is crucial in any network to account for future growth in demand, service quality needs and engineering constraints. *Id. a*t 40. SBC contends that it is far more cost effective to place distribution facilities only once, rather than later dig new trenches and restore damaged driveways and streets to add additional cabling after the first cable has been exhausted. *Id*.

Staff recognizes that reinforcing outside plant would require SBC to dig up streets and sidewalks and this is an expense that SBC would want to avoid. Similarly, it is true that SBC does need to install some amount of excess capacity in order to meet its "ready to serve" obligation. Staff also agrees that the costs associated with outdoor plant cabling are largely fixed and sunk, and that the more significant the fixed and sunk costs of a facility the more capacity a carrier would generally install to accommodate demand uncertainty and demand growth. Although Staff does not quarrel with the fact that SBC's actual network contains spare capacity or dispute the need for some level of spare capacity, the real question is whether the amount of spare capacity currently contained in SBC's embedded network is representative of the capacity (and related demand) that would be built for a forward looking, efficient network. Staff submits that – at least for SBC's actual network – it is impossible to conclude that SBC's embedded

network fills are fully representative of the fill that would be experienced in a forward looking, efficiently designed, network. The inability of SBC to avoid forecasting error for its large and diverse service area compels the conclusion that its embedded network reflects some amount of capacity that would not be built today based on changed circumstances (i.e. innocent forecasting errors). Staff Ex. 25 (Liu Rebuttal) at 25-28, 32. These forecasting errors generally occur when demand does not develop as anticipated or there is an unexpected reduction in existing demand. The forward looking TELRIC environment does not and should not reflect these forecasting errors that have occurred in the past (i.e., the cumulative forecast errors). Thus, unless SBC can demonstrate that it has made no forecasting errors – which it has not – it cannot support the use of its unadjusted actual fills.

SBC contends that capacity adjustments to account for *ex post* inefficiency are not grounded in the FCC's TELRIC requirements. SBC IB at 44-45. To the contrary, the fundamental requirement under TELRIC is that UNE prices be based on the costs of a *forward-looking*, not embedded, network. SBC's *past* mistakes in designing its network are now reflected in its current embedded network, and are certainly not part of a *forward-looking* efficient network designed today. *Ex post* inefficient capacity, which results from *past* mistakes, therefore, should not be reflected in UNE loop costs and should be removed for purposes of setting UNE loop prices. SBC argues that the FCC's rules only require *ex ante* efficiency and that this is generally how TELRIC models are developed. *Id*. at 45. Staff agrees. But this supports rather than contradicts Staff's adjustment. The FCC's rules require an efficient network reconstructed today; in other words, a network that is *ex ante* efficient based on

information available today. Although Staff accepts for purposes of this proceeding that SBC's network was *ex ante* efficient at the time of network construction, SBC's network was constructed in the past over a considerable period of time. As such, current fills reflect demand changes that (i) were unanticipated at the time of construction and (ii) developed subsequent to the time of construction. The extent to which SBC's network is no longer efficient today is, by definition, equal to the extent of its *ex post* inefficiency, which results from its cumulative past "mistakes."

In arguing that the FCC does not require the removal of *ex post* inefficient capacity for purposes of a TELRIC study, SBC asserts that it is unaware of any "true-up" requirement in FCC orders. SBC IB at 45. Although Staff agrees with SBC's underlying premise, SBC errs in equating Staff's adjustment to a true-up proposal or requirement. If SBC had modeled the size of its TELRIC compliant network, Staff would not have proposed any capacity adjustment for *ex post* inefficiency. As discussed above in detail, SBC's LoopCAT model avoids making any such calculations by employing a methodology that develops per loop costs, rather than the total costs of a forward-looking network. Accordingly, Staff's adjustment is not in the nature of a true-up. Rather, it is a necessary adjustment to model – based on LoopCATs omission in this regard – the capacity that one could reasonably assume would exist in a forward looking efficient network, using SBC's actual network as a proxy. That is, Staff's capacity adjustments are designed to remove the impact of SBC's *past*, not future potential, mistakes. Moreover, it is not surprising that SBC is unaware of any FCC orders discussing this concept as Staff is unaware of any FCC orders using actual fills in the manner employed by LoopCAT.

Joint CLECs and Staff agree that SBC's unadjusted fills are inappropriate to use in setting TELRIC costs. See CLEC IB at 66-80. Having said that, Staff wants to make clear that it does not fully share Joint CLECs' view of the extent to which SBCI's actual fills are inconsistent with TELRIC. This issue will be addressed in greater detail in discussing Joint CLECs' alternative proposed adjustment of SBC's actual fills.

f) Forward Looking Actual Fill

As discussed in Section III.B.1.b) above, LoopCAT does not use fill factors to size the network and does not develop a specifically sized modeled network. Rather, LoopCAT develops the monthly cost of a single loop (i.e., the cost per unit of capacity). As a result, LoopCAT relies almost exclusively on the application of fill factors to develop costs reflecting the appropriate demand and capacity parameters for the forward looking hypothetical network. This creates significant difficulties, as the engineering and design routines that would normally be used to develop the capacity of the modeled network (as with the FCC's Synthesis Model) simply do not exist in LoopCAT. SBCI relies on its actual fills to capture the levels and relationship of demand and capacity for the forward looking network. SBC's actual fills are not, however, appropriately representative of the capacity that would be contained in an efficient, forward looking network. Nevertheless, SBC's actual fills are the only reasonable and available starting point from which to develop a proxy for the capacity and demand of the forward looking network. LoopCAT relies heavily on SBC's actual network topology, including customer locations, cable routes, and loop lengths, in developing TELRIC costs. See SBC Ex. 4.0 (Smallwood Direct), Schedule JRS-3 at 6. Thus, there is a strong correlation between the network design incorporated into LoopCAT and SBC's

actual network. Further, the capacity and demand numbers forming SBC's actual fills are in fact real numbers. Thus, by starting with SBC's actual fills to develop proxy fills Staff's proposal is firmly grounded in actual data.

Attached is a chart showing all major proposed fill factors (and related capacity adjustments to SBC's actual fills):

***BEGIN CONF

END CONF***

(1) Staff's Capacity Adjustment Proxy

The general idea underlying a capacity adjustment approach to SBC's actual fills is to "remove", for purposes of a TELRIC study, a portion of the network capacity that is not considered to be part of an efficient, forward-looking design. That is, SBC's current

network is presumably larger in size (i.e., contains more total capacity) than an efficient, forward-looking network (at least to the extent of *ex post* inefficiency reflected in the actual network). Reducing the capacity component of SBC's actual fills produces a correspondingly lower actual fill. Applying lower fills in LoopCAT develops correspondingly lower costs in LoopCAT that would be more representative of the costs per unit of demand required under TELRIC principles. Joint CLECs and SBC both disagree with Staff's forward looking actual fill proposal, as well as Staff's forward looking fill proxy based on capacity adjustments to SBC's actual fills. See CLEC IB at 81-90; SBC IB at 44-47.

(2) CLECs Recommendation to Disregard Staff's Proposal Should be Summarily Dismissed

Joint CLECs contend that the Commission should completely disregard Staff witness Dr. Liu's fill factor proposal, and renew their motion to strike portions of her testimony. CLEC IB at 81-86, 440-442. Joint CLECs' requests are lacking in merit, and should be summarily denied.

Although Joint CLECs describe in detail the schedule of Dr. Liu's testimonial filings in this proceeding, they have no qualms about leaving out the most important fact in those series of dates. Namely, that this proceeding was originally abated and dismissed on May 21, 2003, following the General Assembly's adoption of Sections 13-408 and 13-409 of the Illinois Public Utilities Act. 220 ILCS 5/13-408 and 13-409. This fact is extremely significant, as this accounts for Dr. Liu's reassignment within this case to a new issue (fill factors) when the case was reinstated following the Federal District Court's and Appellate Court's rulings invalidating those provisions. When viewed in this

context (and even if it were not viewed in this context), Joint CLEC's arguments continue to amount to complaints about the schedule over which Staff certainly has no control.

(3) Staff Proposed Fill Factors Are Neither Arbitrary Nor Unreasonable

Joint CLECs contend that Staff's proposed proxy fill values are "arbitrary and totally lacking in empirical support." CLEC IB at 55-56, 84. Staff's proxy fill value proposal is neither arbitrary nor unreasonable, and is no less empirically based than the usable capacity fill and target fill proposals that Joint CLECs wholeheartedly embrace. Indeed, of the three fill factor proposals, Staff's proxy fill factor proposal is the most empirically based, starting as it does with SBC's actual fact based fill factors.

First, the determinations of usable capacity fill values proposed by Joint CLECs are based on, among other things, inputs and opinions provided by SBC telecommunications engineers. There is no evidence indicating they are based on SBC's actual data, and thus have no "empirical basis" as Joint CLECs use that term. The usable capacity fill values are not calculated by comparing the total loop capacity used for administrative, maintenance and testing purposes with the total loop capacity. Nor are the usable capacity fill values calculated by dividing the "maximum usable capacity" by the total available capacity in SBC's network at any point in time. That is, they are not "calculated" based on SBC's actual data. Rather, they largely reflect telecommunications engineers' opinions, which unavoidably reflect some element of subjectivity.

Second, target fill values, which are intended for specific segments of the network (Tr. 935), are similarly determined and primarily reflect telecommunications engineers' opinions. Understandably, various factors drive the decisions to reinforce plant and there is no unique and single utilization level that covers all contingent situations. Tr. 934-5. Network engineers decide to reinforce network plant at lower utilization levels in some situations than in others. The utilization levels at which SBC engineers decide to add plant in the real world vary widely and are contingent on various factors. Indeed, SBC does not have any *engineering guidelines* for "target fill". For example, SBC does not have any predetermined percentage of utilization level above which to reinforce distribution facilities. Tr. 598. In some situation, SBC would only reinforce its distribution plant when it has used up the last pair. Tr. 596.

SBC developed its target fill values in the TELRIC proceeding based on subject matter experts ("SMEs") opinions on realistic relief points. Tr. at 934-935. SBC's target fill values, having been determined based on SME opinions, would unavoidably reflect some element of subjectivity. Staff's target fill values in the TELRIC I proceeding, on the other hand, were simply based on Staff witnesses' opinions, which also unavoidably have elements of subjectivity. Neither SBC's nor Staff's target fill values proposed in the TELRIC I proceeding have, as Joint CLECs use these terms, any identifiable "empirical basis."

Third, Staff's proposed proxy fill values in this proceeding were similarly determined based on SBC actual data. Staff witness Mr. Bud Green, Chief Engineer of the Commission's Telecommunications Division, reviewed Staff witness Dr. Liu's proposed proxy fill values and supported her recommendation. Staff Ex. 32 (Green

Rebuttal) at 2. Staff witness Dr. Liu selected capacity adjustment percentages that were intended to account for *ex post* inefficient loop capacity that has resulted from unavoidable forecasting errors. Staff witness Dr. Liu then applied these capacity adjustment to SBC's actual capacity or actual fill rates (both based on empirical data), and calculated Staff's proposed proxy fill factor values associated with the respective capacity adjustments. Staff Ex. 25 (Liu Rebuttal to SBC) at 28-29, 30-31, and Schedule 25.2. In short, Staff's capacity adjustments, like the usable capacity fill values and target fill values (proposed by SBC and Staff in the TELRIC I proceeding), are largely based on SME opinions.

Joint CLECs wholeheartedly embrace the usable capacity fill values and Staff proposed target fill values (from the TELRIC I proceeding), but label Staff's proposed proxy fill values in this proceeding as "arbitrary" and lacking in "empirical basis". It is clear that Joint CLECs do not take issue with fill factor proposals derived on a comparable basis. Thus, it is not the absence of empirical support or the presence of supposedly "arbitrary" SME opinions per se that troubles Joint CLECs. Rather, the real issue appears to be that Staff's proposed proxy fill values are lower than Joint CLECs desire – not that Staff's proposal lacks empirical basis or is somehow arbitrary. As such, their arguments amounting to little more than personal attacks and must be rejected.

(4) Joint CLECs Proposed Adjustments to SBC's Actual Fill Factors are Illogical and Reflect a Misunderstanding of Economic Theory

Joint CLECs third proposed option, if the Commission does not adopt their usable capacity fill or target fill proposals, is to adopt the forward looking actual fill

factors proposed by Staff as adjusted by Joint CLEC witnesses Messrs. Starkey and Fischer. CLEC IB at 48, 86-90. Joint CLECs contend that they have implemented Staff's capacity adjustment approach in a manner that produces "a superior, more logically-grounded and empirically based set of values . . . ." CLECs IB at 90; see also AT&T/Joint CLECs Ex. 1.3P at 19-29; Tr. at 1753. To the contrary, Joint CLECs' adjustments to SBC's fill factors are based on *ill-founded unjustifiable* logic. These proposed adjustments reflect a lack of understanding of the issues surrounding fill factors and misuse of economic theory.

(a) "Best Observed Practices" Adjustment"

Joint CLECs contend that their "best observed practices" adjustment reflects the practice of economists, who measure the efficiency of a particular entity by comparing it with a best-observed practice. CLEC IB at 86. Specifically, Joint CLECs treat SBC's wire centers as entities and equate efficiency with "utilization rate". The best observed practice in their view is the highest observed utilization rates, and the wire centers with lower observed fill rates must be less "efficient." Economists would not use network utilization rates at the wire center or network level to measure degrees of efficiency of the wire center or of the entire network. Neither would economists compare "efficiency" across wire centers without taking into account the vastly different characteristics of different wire centers.

First, Joint CLECs cannot provide and have not provided one single instance in which economists use utilization rates to measure efficiency or performance at any given point in time at a wire center or at the network level. In fact, economists do not use network utilization rates as an index of efficiency. The only efficiency concept

relevant to issues surrounding fill rates is dynamic efficiency. In other words, the only relevant efficiency issue in the context of fill rates is whether SBC has designed its network efficiently. More efficient network design leads to lower long run unit cost of serving customers. A utilization rate at any given point in time at a particular wire center does not in any way indicate whether this particular wire center has been engineered and designed efficiently. Neither does it indicate whether SBC could serve its customers in the long term at lower unit costs.

Secondly, SBC's wire centers have vastly different characteristics. An "efficient practice" in one wire center may be an "inefficient practice" in another wire center. Efficient engineering design, for example, requires more capacity to be engineered to accommodate future demand growth in higher growth wire centers than in lower growth wire centers. All else equal, a fill rate (Joint CLECs' index of an "efficient practice") in a higher growth wire center would be lower than the fill rate in a lower growth wire center at any given point in time. In addition to the fallacy of using utilization rates to measure efficiency, Joint CLECs further err by comparing the "best practice" across wire centers without taking into account the vastly differently characteristics across SBC's wire centers. Economists certainly do not compare the "practices" of any two entities without controlling for underlying differences in characteristics between the two entities. Therefore, contrary to Joint CLECs' contention, their proposed adjustments are not supported by economic theory or practice.

Not only do Joint CLECs' adjustments not have a sound economic foundation, but they are also based on faulty logic. In making their "best observed practices" adjustment, Joint CLECs selected twenty SBC wire centers that have the highest fill

rates (measured in January 2002), and made adjustments to SBC's fill rates proposed in this proceeding based on the premise that the highest fill rates represent the best-observed practice. See AT&T/Joint CLECs Ex. 1.3P at 22. Under this premise, Joint CLECs would conclude that SBC is inefficient or has inefficient practices at some of its wire centers as long as fill rates vary across SBC's wire centers. Stated alternatively, Joint CLECs' "efficiency" standard would require that SBC achieve an identical utilization rate across all of its wire centers at any given point in time to be deemed efficient. Such reasoning defies logic.

Contrary to Joint CLECs' contention, the observed fill rates at any given point in time, at the wire center level or at section level, are not an indicator *per se* of efficiency or inefficiency. The observed variation in fill rates across wire-centers does not *per se* suggest that some wire centers are more efficient (*ex ante* or *ex post*) than others. In particular, wire centers with higher fill rates are not necessarily more "efficient". As an obvious example, a wire center with a fill rate higher than the "target fill" is not cost effective and is less efficient than a wire center with a fill rate at the "target fill".

SBC fill rates vary across wire centers and cable routes. The variation *per se*, however, does not suggest "inefficiency". Engineering practices and the dynamic nature of network deployment and supplementation would necessarily produce variation in fill rates at any given point in time across SBC wire centers. The installed total capacity at a wire center is determined by various factors, including but not limited to, regulatory requirements (such as carrier of last resort and mandatory quality of service requirements), fixed loop deployment costs, demand, demand growth, cable breakage, and so on. Fill rates at a particular wire center reflects all these factors as well as the

time interval between the construction of loop facilities and the time of the observed fill rate being measured. The observed variation in fill rate across SBC wire centers can be attributed to any of these factors, none of which reflect inefficiency in SBC.

This inability of variation in fill rates by wire center to predict efficiency can be illustrated by the following hypothetical regarding cable breakage. Assume two residential distribution areas with identical fixed loop deployment costs and identical expected *demand growth*. Further assume one area expects to have 50 living units, the other expects to have 88 living units upon the completion of construction of these areas, and neither serving area expects growth in living units. Based on SBC's "2.25 lines per living unit" distribution engineering guideline, the engineered capacity would be 112.5 in one area and 198 in the other area. The effective capacity (or installed) cable size would be the same in both areas — size 200 — because the cable size that could accommodate the engineered capacity of 112.5 is the same as the cable size that would accommodate the engineered capacity of 198. The fill rates in these two areas would differ greatly simply because the number of living units differ, which leads to widely different usage and engineered capacity. If, *at a given point in time*, the average living unit in both serving areas uses 1.5 lines. The fill rate at the smaller serving area would be 37.5% (=75/200) and the fill rate at the larger serving area would be 66% (=132/200). The latter is almost double the former. Similarly, cable breakage can also cause lower fill in a larger serving area and vice versa. Moreover, any of the other factors such as demand growth and fixed costs can similarly cause fill rates measured at any given point in time to vary widely across SBC wire centers. Therefore the

observed variation in fill rate per se in this proceeding does not signify "inefficiency" at any particular SBC wire center.

Moreover, SBC's wire centers have vastly different characteristics. They differ in topography, demand, demand growth, customer composition, fixed loop deployment costs, and so on. These variations in characteristics would necessarily lead to variation in fill rates across wire centers. In other words, efficient network design necessarily results in variation in fill rates across SBC wire centers in view of the vastly different underlying characteristics across these wire centers.

Joint CLECs' "efficiency" standard requires that SBC achieve identical fill rate across all of its wire centers. Joint CLECs would find "inefficient practices" in all but 20 (259 out of 279) of SBC's wire centers as long as there is variation in the fill rate across SBC's wire centers, making upward adjustments to SBC proposed fill factors. AT&T/Joint CLECs Ex. 1.3P at 22-23. SBC would definitely fail Joint CLECs' "efficiency" standard, regardless whether SBC has engineered all of its wire centers efficiently, unless all of its wire centers were *identical in all aspects* but location. Joint CLECs' "efficiency" standard essentially asks that the Commission find SBC's network inefficient even SBC has engineered all of its wire centers efficiently. Alternatively, Joint CLECs' "efficiency" standard essentially asks that the Commission assume away the vastly different characteristics across SBC wire centers when assessing whether SBC has "inefficient practices" in its wire centers. Such an approach inappropriately disregards SBC's actual network topography. *See* TELRIC NPRM at ¶53.

(b) Percentage of Defective Pairs Based Adjustment

Joint CLECs also applied their "best-observed practices" methodology to observations regarding percentages of defective pairs. CLEC IB at 87; AT&T/Joint CLECs Ex. 1.3 at 18. Joint CLECs change in efficiency did nothing to improve their analysis. First, Joint CLECs have not provided one single instance in which economists use the percentage of defective pairs to measure "efficiency" at a wire center or at the network level. In fact, to Staff's knowledge, nowhere have economists declared wire centers with higher defective pair percentages to be less "efficient". Rather, defective pair percentages do not measure efficiency and higher defective pair percentages do not suggest less efficiency. Defective facilities are facilities that have an anomaly that prevents the facilities from meeting transmission standard, which could be due to a manufacturing defect, an Act of God or the age of the plant.

The occurrence of defective facilities is exogenous and beyond SBC (or any carrier's) control. The percentage of defective pairs at any given point in time at a particular wire center are mainly determined by two factors: the cumulative occurrences of defective pairs and the cumulative recovery of defective pairs. That is, the defective percentage at a given point in time at a particular wire center depends on the level of defective facilities SBC has recovered at this wire center.

Moreover, the relevant efficiency concept in the context of defective pairs is efficiency in the recovery of defective pairs because the occurrences of defective pairs are exogenous and beyond SBC's control. Economic efficiency does not indiscriminately require that a carrier immediately repair all or a percentage of its defective pairs regardless of whether it would immediately need them. The efficient effort to recover defective pairs at a particular wire center largely reflects the immediate

need for these defective pairs and the economics of repairing these defective pairs. The defective percentage *per se* does not measure "efficiency". Joint CLECs have failed to properly measure efficiency and inappropriately used defective pair percentages to measure "efficiency".

Secondly, SBC wire centers vary widely in characteristics. The occurrences of defective pairs vary widely across wire centers. The economically efficient repair efforts also vary across wire centers, depending on the immediate needs for these defective pairs and the economics of repairing these defective pairs. Thus the existence, not the absence, of variation in defective percentage across wire centers is consistent with economically efficient recovery of defective pairs.

Third, Joint CLECs declare all SBC wire centers with more than 1% defective facilities as "inefficient". Under this "efficiency" standard, SBC must repair and recover its defective facilities in such a way that none of its wire centers should have defective percentages higher than 1%. In other words, Joint CLECs' "efficiency" standard requires that SBC deploy an economically inefficient defective facilities recovery process. Moreover, Joint CLECs have not examined the various factors that result in defective pairs such as manufacture defect, weather etc. They have not made any assessment as to the percentage of defective facilities that would result from each of the factors. Tr. at 1815. Thus, they have no supporting evidence as to what percentages of defectives at the network level or wire centers should be considered as "disturbingly high". Neither could they tell how much variation in defective percentages across wire centers should be considered to be "too much". Therefore, Joint CLECs' provide no support for their assertion that SBC's defective percentages across wire

centers suggest inefficiency. Neither have they provided any support for why "efficiency" would require that SBC immediately recover its defective pairs such that its defective percentage is 1% or less at every one of its wire centers.

Fourth, Joint CLECs' "fully depreciated facilities" argument (AT&T/Joint CLECs Ex. 1.3P at 20-21) has no merit in the context of defective pair percentages. Whether loop facilities are fully depreciated or not has relevance to accounting, but it is irrelevant in assessing whether SBC's *network capacity* is efficiently engineered or whether SBC has deployed an efficient defective facilities recovery process.

Finally, the debate of whether the universally bad pairs ("UBP") (non-recoverable) defective facilities should or should not be included in the calculation of actual fill rates is effectively moot. AT&T/Joint CLECs Ex. 1.3P at 20-21. Staff notes that UBP is not necessarily an embedded feature of SBC's (or any carrier's) network. UBP resides with any network, forward-looking or not. As expected, the UBP pairs constitute very small percentages of the total available pairs. For example, the cumulative UBP feeder pairs are only 0.07% of total available feeder pairs and the cumulative UBP distribution pairs are 0.01% of total available distribution pairs. SBC Illinois Ex. 8.2 (White) at 7: The inclusion or exclusion of these UBP would have little impact on the fill rates or the UNE loop prices.

(5) Response to SBC's Arguments

(a) Cable Breakage

SBC's criticism that Staff's capacity adjustment proposal fails to account for cable breakage is misplaced. SBC IB at 46. Staff's adjustment percentage is applied to SBC's total installed network capacity, not its total engineered capacity. Staff's

proposal implicitly assumes that 15% of SBC's distribution capacity and 7.5% of the capacity of other loop components (to which the adjustment applies) have been placed as a result of SBC's forecast errors (i.e., *ex post* inefficiency). Staff's proposal does not assume that SBC's engineered distribution capacity should be 15% smaller if it somehow had a crystal ball when designing or supplementing every section of its network. SBC's criticism as related to cable breakage might have merit if the percentage adjustment were intended to capture the amount of engineered capacity resulting from forecasting errors. As it is not so, SBC's criticism is misplaced.

(b) Capacity Adjustment vs Unit Cost Adjustment

SBC also contends that staff's proposal fails to recognize "characteristics of plant investment and installation costs". SBC IB at 46. SBC's criticism is misplaced. Staff's adjustment proposal itself (i.e., as it is related to the two percentages, 15% and 7.5%) does not need to account for the characteristics of loop deployment costs. The 15% and 7.5% percent adjustments are applied to network capacity and they are referred to as capacity adjustment percentages with good reason. Staff Ex. 25.0 at 28-29. The characteristics of loop deployment costs, however, are relevant to the *implementation* of staff's capacity adjustment proposal. As stated in Staff's initial brief, staff recognizes that capacity adjustments would, all else equal, raise unit investment as well as the network fill rate. Omitting the impact of capacity adjustments on unit investment would understate the costs of SBC's forward-looking network, which is smaller (than its current embedded network) because ex post inefficient network capacity is removed. LoopCAT does not have a built-in mechanism to readily channel through the effect of capacity adjustment on unit investment. SBC must have recognized this. As a result,

Staff's implementation of its capacity adjustment unavoidably omits the effect of the capacity adjustment on unit cost. SBC's criticism would have merit if Staff had argued that the percentage capacity adjustment *should* result in the same percentage adjustment to unit costs. Nowhere in testimony has staff made such a suggestion. Therefore, SBC's criticisms that staff's capacity adjustment proposal (15% and 7.5%) fails to recognize the characteristics of loop deployment costs are misplaced. Moreover, SBC's analysis of Staff's adjustment simply makes the point that a 15% capacity adjustment does not lead to 15% reduction in unit costs due to fixed loop deployment costs, which staff recognizes. SBC Illinois Ex. 14.1 at 10-11; Staff IB at 60-64. Its analysis, however, does not produce any estimates on the magnitude of the understatements of UNE loop prices, which result from omitting the effect of capacity adjustment on unit investment. Based on staff's selective boundary checking, the understatements in UNE loop costs are not unacceptably significant under Staff's proposed capacity adjustments. *Id*.

(c) Under-Forecasts of Demand

SBC also contends that Staff fails to recognize "underestimated demand". SBC IB at 46. This is simply not true. Staff recognizes that demand may grow faster than expected and thus loop plant may need to be supplemented due to the unexpected demand growth. This type of ex post inefficiency, however, does not cause concerns because SBC is able to remedy this type of inefficiency by adding facilities. Staff Ex. 25 at 26.

2. Depreciation

Staff recommends that the Commission should adopt the forward-looking equipment lives developed by the FCC and ordered by this Commission in ICC Docket 96-0486/0569. SBC Ill. IB, at 4. SBCI maintains that Staff's depreciation rates do not account for the technological and marketplace changes that are occurring at an ever-faster pace. *Id.*, at 6. In particular, SBCI argues that technological change continues at a rapid pace and that ILECs now face significant facilities based competition which shortens the useful economic life of its equipment. *Id.*, at 56. SBCI, consequently, proposes the use of financial reporting lives. SBC Ill. IB, at 55-58.

In support of the use of financial reporting lives, SBCI states that: "Use of financial reporting depreciation lives both reflects and encourages the use of new and efficient technologies, as well as investment in infrastructure, by accurately accounting for the true decline in value of an asset due to competition and ongoing technological advances, as the *Triennial Review Order* requires." SBC Ill. IB, at 55 (emphasis in original omitted). First, however, the FCC does not require the use of financial reporting lives, as SBCI implies, although it does not preclude them. In fact, in the *Triennial Review Order*, the FCC stated:

> We decline to adopt the incumbent LEC's suggestion that we mandate the use of financial lives in establishing depreciation expense under TELRIC. The incumbent LECs have not provided any empirical basis on which we could conclude that financial lives always will be more consistent with TELRIC than regulatory lives. * * * Accordingly, state commissions continue to have discretion with respect to the asset lives they use in calculating depreciation expense.

Triennial Review Order, ¶ 688. Not only has the FCC refused to adopt financial lives, but so has this Commission. *See Second Interim Order*, at 27 (Feb. 17, 1998) ("We do

not believe that financial accounting lives are a suitable proxy for economic lives, as they are often driven by corporate financial objectives, and reflect accounting rules biased toward conservatism.").

Second, although SBCI does a lot or arm waving, it has provided little in the way of hard evidence to support its view that depreciation rates need to be increased. It has not shown that the rate of technological change is accelerating from the rapid rates experienced in the past. Rather it provides examples of current technical change and then speculates that these technical changes will cause equipment to be replaced more quickly than before. SBCI does not acknowledge that some technologies allow advanced services to be offered over metallic cable. Moreover, its demand forecasts for advanced services like broadband amount to little more than assertions that are unsupported by underlying economics. Staff Ex. 2.0 (Staranczak), at 30-31.

Further, there is no credible statistical evidence to support the view that facilities based competition will increase substantially. Staff Ex. 22 (Staranczak), at 22. SBCI speculates that cable telephony *could* achieve 25% or more market share within a few short years. SBC Ill. IB, at 59. Cable telephony currently accounts for only a small portion of the total market and growth for this type of entry appears to have stalled. If recent growth trends in cable telephony are maintained then it would take until the year 2045 for cable telephony to reach 9 million lines (about 9% of the market). Moreover, there is now less facilities based competition from non-coaxial sources than there was three years ago. Staff Ex. 22 (Staranczak), at 18-19.

SBCI also speculates that cellular communication will replace wireline communication completely in over 20% of households by 2005. SBCI Iinitial Brief, at

59. However there is a complete dearth of evidence to support this forecast. Staff Ex. 22.0 (Staranczak), at 20. Only about 2% of households rely entirely on wireless today even though there are over 128 million wireless subscribers nationwide currently and wireless has been available to customers for many years. For SBC witness Dr. Vanston's wirleless substitution forecast to come true would require approximately 18 million households to switch from wireline to wireless over the next three years, which averages out to 6 million a year. Six million customers a year switching from wireline to wireless is almost three times as many per year as have switched to date and is simply not credible. Staff Ex. 22 (Staranczak), at 20-21.

To summarize, it is SBCI that must carry the burden of proof and prove to the Commission that depreciation rates need to be increased. *See e.g.*, 47 CFR § 51.505(e) ("An incumbent LEC must *prove* to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element"); *Second Interim Order,* 96-0486/0569 (Feb. 17, 1998), at 34 ("The Company apparently has forgotten that under the Illinois Public Utilities Act, it and it alone, bears the burden of proving that proposed rates are just and reasonable."). SBCI, however, has utterly failed to provide any evidence to suggest that either cable or wireline facilities based competition will pose a substantial threat to wireline in the near future. Since the dramatic increase in facilities based competition SBCI relies upon will most likely not occur, its argument for accelerated depreciation fails completely. Staff Ex. 22.0 (Staranczak), at 17.

SBCI also contends that customers in the future will require upgraded circuit equipment and fiber much deeper into the network to meet their advanced service

needs. SBC Ill. IB, at 57. This is because, according to SBCI, much of the fiber in use is becoming obsolete and does not take advantage of technologies that greatly increase capacity. SBC Ill. IB, at 58. In addition, SBC maintains that as broadband subscribership and bandwidth needs increase, the advantage of fiber optics optical over metallic cable will become insurmountable and metallic cable will be driven out of use.

There is however, no credible evidence that subscribers will need or demand ever-increasing bandwidths. Staff Ex. 22.0 (Staranczak) at 27. SBCI simply assumed that the network will undergo a fundamental transition from low-speed broadband to very high-speed broadband and expects the Commission to accept this forecast on faith because it provides no evidence or analysis to support this claim. *Id*. For example, SBCI asserts that 90% of households will subscribe to broadband by 2020. SBC Ill. Ex. 13.0 (Vanston), at 6-8. Yet this forecast implies unrealistic growth rates in subscribership that are not supported by the underlying economics. Staff Ex. 2.0 (Staranczak), at 31. Such a forecast unrealistically assumes that the vast majority of lower income, less educated and less technologically sophisticated households will subscribe to such an expensive discretionary service. *Id*., at 25. Further, SBCI witness Dr. Vanston inappropriately used penetration rates achieved for consumer durables such as radio, television and VCRs to "forecast" broadband penetration rates. It is clearly improper to use penetration rates for durable goods that are purchased once every five or ten years to forecast the penetration of a service such as broadband that must be purchased monthly. Staff Ex. 22.0 (Staranczak), at 28. For all these reasons Staff believes that a penetration rate of 35% for broadband is more reasonable. *Id*., at 29.

Finally, Staff also notes that currently two-thirds of all broadband subscribers are served by cable companies. Staff Ex. 22 (Staranczak), at 29. Consequently, it is inappropriate public policy to have ratepayers who don't subscribe to broadband, or who obtain broadband from the cable companies to pay higher telephone rates just to better position the telephone companies to compete in the broadband market. *Id*., at 30.

For all of the above-articulated reasons, Staff recommends that the Commission adopt the forward-looking equipment lives developed by the FCC and ordered by this Commission in ICC Docket 96-0486/0569.

3. Cost of Capital

a) Overview

(1) Response to SBCI's Initial Brief

SBCI asserts that Staff's entire cost of capital recommendation is both unlawful and too low because 1) it is lower than the cost of capital established by the Commission in its 1998 TELRIC Order and 2) it does not reflect "full" competition. SBCI IB at 13-15, 63-64. SBCI's claim is completely unfounded and discredits SBCI's overall argument.

SBCI claims that its risks have risen since the Commission's *TELRIC Order,* in 1998. SBCI IB at 63. SBCI further suggests that, as a matter of law, such an increased risk mandates a higher cost of capital. Id. at 62, 64. Thus, SBCI concludes that Staff's proposal "lacks common sense," since it is lower than the cost of capital established by the Commission in its 1998 TELRIC Order. Id. at 63. SBCI states that "the *only* way the Commission could decrease the 9.52% cost of capital adopted in 1998 would be if it found that the risks faced by SBC Illinois in a market filled with ubiquitous facilities-

based competition would somehow be *less* than the risk SBC Illinois faced in 1998." Id. at 64.

SBCI's argument is fundamentally flawed. SBCI assumes that a higher competitive risk necessarily leads to a higher cost of capital. If all else is held equal, that statement will be true. However, in this case, all else is definitely *not* equal; specifically, the current financial market environment is not the same as it was in 1998. There are two factors that can lead to a lower cost of capital despite somewhat increased risk.[19] First, the price of risk may have fallen.[20] Second, the risk-free rate (R_f) may have fallen. Either of these factors may drive the cost of capital below previous levels despite a higher level of risk.

SBCI clings to the assertion that the FCC has mandated that states reflect "full" and "ubiquitous" competition in the cost of capital incorporated in UNE prices. SBCI IB at 62-64. All the repetitions of SBCI's wishful thinking in the world cannot change the fact that the FCC's directive on this issue does not include the words "full" or "ubiquitous." The record shows that only the Wireline Bureau (the "Bureau") used those words to describe the level of competition to assume. SBCI Ex. 12.2 at 4-5. Significantly, the Bureau does not set policy for the FCC and does not set legal precedent for Commission decisions. The Bureau's lack of authority notwithstanding, its use of the word "widespread" in describing its opinion of the facilities-based competition to assume suggests that it uses the phrase "ubiquitous competitor" to mean some competition in every market area, rather than a high level of competition in all market

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[19] The beta component of the CAPM is a measure of the quantity of risk.

[20] The market risk premium component of the CAPM ($R_m - R_f$) is an example of the price of risk.

areas. Far more significantly, the statements SBCI quotes directly from the FCC neither use words such as "ubiquitous" or "full" nor impose such explicit guidelines. Thus, Staff is not "refus[ing] to abide by," nor is it in "defiance of," a "crystal clear" FCC directive requiring "full" competition, SBCI IB at 64, since no such directive exists outside of SBCI's testimony and fond hopes. Furthermore, contrary to SBCI's claims, Staff acknowledges the FCC's directive to reflect facilities-based competition in UNE prices, and as such, has reflected facilities-based competition in its proposal. However, Staff's proposal does not, and should not, reflect "full" competition. Staff's recommendation reflects a level of competition consistent with the degree of efficiency reflected in the other cost components of Staff's proposed UNE loop rates, which is consistent with the Commission's comments on the FCC's recent notice of proposed rule making. The above arguments notwithstanding, establishing "full" competition, as SBCI advocates, is not as clear-cut as SBCI suggests. An SBCI citation notes that even the Bureau, upon which SBCI relies so heavily, acknowledges "TELRIC does not require an assumption of a perfectly competitive or perfectly efficient market." SBCI Ex. 12.2 at 5. Thus, "full" competition must lie somewhere between monopoly of perfect competition; defining precisely where along that spectrum "full" competition lies is a matter of interpretation.

SBCI claims that Staff's cost of capital proposal "would give SBC Illinois a cost of capital similar to that of heavily regulated gas and electric utilities." SBCI IB at 65. That statement is entirely unsupported. The only related data on the record involves a comparison of individual company cost of equity estimates included in Staff's overall cost of equity analysis to those authorized for natural gas and electric utilities in the first half of 2003. SBCI Ex. 12.1 at 7. This comparison is inappropriate, as was explained in

Staff's Initial Brief. Staff IB at 87-88. Nevertheless, Staff's cost of equity recommendation exceeds those authorized for natural gas and electric utilities in the first half of 2003 by more than a full percentage point. Id. at 88. Moreover, Staff's 12.44% cost of equity recommendation also significantly exceeds the 10.54%, 10.71%, and 10.46% costs of equity recently authorized by the Commission for CILCO's, AmerenCIPS', and AmerenUE's natural gas operations, respectively. *Order* at 41, Central Illinois Light Company: Proposed general increase in natural gas rates, ICC Docket No. 02-0837 (October 17, 2003); Order at 90, Central Illinois Public Service Company (AmerenCIPS) and Union Electric Company (AmerenUE): Application for entry of protective order to protect confidentiality of materials submitted in support of revised gas service tariffs / Central Illinois Public Service Company: Proposed general increase in natural gas rates (Tariffs filed November 27, 2002) / Union Electric Company: Proposed general increase in natural gas rates (Tariffs filed November 27, 2002), ICC Docket Nos. 02-0798 / 03-0008 / 03-0009 (Cons.) (October 22, 2003) Thus, SBCI's claim is baseless.[21]

SBCI claims that "SBC Illinois would be unable to raise the capital needed to run its business and its credit rating would almost certainly be downgraded" if its cost of capital were set at the level Staff proposes. SBCI IB at 65. SBCI is, again, wrong. Staff has shown that its overall cost of capital recommendation would maintain a reasonable level of financial strength. Staff Ex. 12.0 at 26-29; Staff Ex. 31.0 at 11-13. Indeed, every step of Staff's analysis was designed to target an A/A– credit rating. An

[21] Significantly, only cost of equity data is provided. No comparison of the cost of capital data, which reflects the cost of equity, cost of debt, and capital structure was included.

A/A– credit rating is indicative of a strong financial capacity and the ability to access capital. Staff Ex. 12.0 at 3-33.

b) Capital Structure

(1) Response to SBCI's Initial Brief

SBCI wrongly claims that Staff's capital structure proposal is not tenable in a market with "full" competition and would likely result in a downgrading of SBCI's credit rating and a reduction in SBCI's ability to raise necessary capital. SBCI IB at 67. As noted above, Staff has shown that its overall cost of capital recommendation would maintain a reasonable level of financial strength. Staff Ex. 12.0 at 26-29; Staff Ex. 31.0 at 11-13.

SBCI wrongly claims that the capital structure to use in setting UNE prices should be based on market values. SBCI IB at 67. SBCI also wrongly claims that the FCC agrees. Id. As fully explained in Staff Initial Brief, use of secondary market values of pre-existing capital is completely inappropriate. Staff IB at 97-99. Moreover, contrary to SBCI's claim, the FCC has not stated that the capital structure should be based on market values. Once again, SBCI is attempting to pass the opinion of the Bureau off as FCC policy; but the Bureau does not set FCC policy and does not set legal precedent for Commission decisions.

SBCI claims that financial theory indicates that firms should use market values to calculate their weighted average costs of capital. SBCI IB at 68-69. As explained in Staff's Initial Brief, use of secondary market values of pre-existing capital is completely inappropriate. Staff IB at 97-99. Nevertheless, if a market value capital structure were used, then Staff's cost of equity would need to be reduced significantly. As rising stock prices increase the proportion of equity in the capital structure, financial theory indicates

that the rate of return on equity would, by necessity, need to be reduced. Otherwise, an unnecessarily excessive cost of capital will result. Failure to lower the cost of equity in response to increasing the proportion of common equity would result in an overly expensive, inefficient, "gold plated" financial strength as evidenced by the astronomically high interest coverage ratios (i.e., 28.3x EBIT and 36.2x EBITDA) inherent in SBCI's capital structure proposal. Staff Ex. 12.0 at 42. In contrast, the interest coverage ratios resulting from Staff's recommendation (i.e., 5.6x EBIT and 7.9x EBITDA) demonstrate that the combination of capital structure and component costs Staff proposes is reasonable. Staff Ex. 12.0 at 27-28; Staff Ex. 36.0 at 8.

SBCI argues that "the root flaw" in Staff's capital structure analysis is that Staff "outright defies the *Triennial Review Order*" and "knowingly ignored the FCC's requirements" to reflect "full" competition. SBCI IB at 14, 69-70. SBCI claims this mandate of "full" competition is found in paragraphs 680-683 of the FCC's TRO. Id. SBCI heavily relies on a clear mischaracterization of an FCC Order. In fact, the TRO provides as follows:

> To ensure that UNE prices set by the states appropriately reflect the risks associated with new facilities and new services, we think it would be helpful to clarify two types of risks that should be reflected in the cost of capital. First, we clarify that a TELRIC-based cost of capital should reflect the risks of a competitive market. The objective of TELRIC is to establish a price that replicates the price that would exist in a market in which there is facilities-based competition. In this type of competitive market, all facilities-based carriers would face the risk of losing customers to other facilities-based carriers, and that risk should be reflected in TELRIC prices.
>
> We do not agree with AT&T that paragraph 702 of the Local Competition Order limits a state to considering only the actual competitive risk the incumbent LEC currently faces in providing UNEs. Because the objective of TELRIC pricing is to replicate pricing in a competitive market, and prices in a competitive market would reflect the competitive risks associated with participating in such a market, we now clarify that states

should establish a cost of capital that reflects the competitive risks associated with participating in the type of market that TELRIC assumes. The Commission specifically recognized that increased competition would lead to increased risk, which would warrant an increased cost of capital. Although paragraph 702 states that there was limited competition for network elements at the time, it is clear from our discussion of the TELRIC methodology that future competition must be considered in assessing risk.

The approach advocated by AT&T and WorldCom does not provide optimal incentives for investment. To calculate rates based on an assumption of a forward-looking network that uses the most efficient technology (i.e., the network that would be deployed in a competitive market), without also compensating for the risks associated with investment in such a network, would reduce artificially the value of the incumbent LEC network and send improper pricing signals to competitors. Establishing UNE prices based on an unreasonably low cost of capital would discourage competitive LECs from investing in their own facilities and thus slow the development of facilities-based competition.

Second, we clarify that a TELRIC-based cost of capital should reflect any unique risks (above and beyond the competitive risks discussed above) associated with new services that might be provided over certain types of facilities. In the Local Competition Order, the Commission stated that different UNEs may have different costs of capital. We now clarify that the use of UNE-specific costs of capital is an acceptable method of reflecting in UNE prices any risk associated with new facilities that employ new technology and offer new services. A carrier in a TELRIC proceeding could, for example, attempt to demonstrate that the cost of capital associated with new services that might be provided over mixed copper/fiber loops is higher than the cost of capital used for voice services provided over other UNEs. We think this approach responds to the incumbent LECs' concern that our rules provide no opportunity for them to recover the cost of investing in facilities to provide services that are more advanced than those modeled under TELRIC.

Triennial Review Order, ¶¶680-683 (footnotes omitted)

Contrary to SBCI's claim, nowhere in those paragraphs does the FCC refer to "full" competition. Rather, those paragraphs merely state that some unspecified level of competition should be reflected. The FCC's directive on competitive risk was fully explained previously in this document. Nevertheless, contrary to SBCI's implications, Staff's capital structure recommendations would not change dramatically even if Staff

used the interest coverage ratio medians for industrial companies, which reflect a higher level of competition than those for the Telecom Sample, which reflect a moderately high level of competition. A capital structure consisting of 4.68% short-term debt, 43.32% long-term debt, and 52.00% equity produced interest coverage ratios consistent with those of an industrial company with an A/A– rating. That the use of industrial medians would cause such a small change in capital structure indicates that the Telecom Sample is not significantly less risky than the industrial median. Staff Ex. 31.0 at 15-16.

SBCI wrongly criticizes Staff's analysis for its reliance on interest coverage ratios, suggesting that observable debt ratios provide a superior benchmark. SBCI IB at 70-71. This was fully refuted in Staff's Initial Brief, and there is no need to reiterate those arguments here. Staff IB at 96-97.

SBCI wrongly claims that Staff's capital structure would not be sufficient to support a rating of triple-B. SBCI IB at 71. SBCI is wrong. Again, Staff fully explained in its Initial Brief why SBCI's argument is incorrect. Staff IB at 99-100.

SBCI wrongly claims that short-term debt should not be included in the capital structure. SBCI IB at 71-72. Staff demonstrated the fallacies in this argument in its Initial Brief. Staff IB at 100-102.

c) Cost of Debt

(1) Response to SBCI's Initial Brief

SBCI wrongly claims that its 7.18% cost of long-term debt proposal conservatively represents the cost of raising new debt funds in the marketplace. SBCI IB at 72-73. Again, Staff fully addressed, and fully refuted this argument in its Initial Brief. Staff IB at 74-75.

d) Cost of Equity

(1) Response to SBCI's Initial Brief

SBCI claims that its 13.0% cost of equity recommendation is a "conservative" estimate of the required return on equity to apply in setting UNE prices. SBCI at 74. However, SBCI's argument is utterly defective. First, SBCI's recommendation is based on an analysis that is five years old. Staff Ex. 12.0 at 35. Thus it is not remotely forward-looking, as TELRIC standards require. Id. Second, the updated analysis SBCI presented as support for its original cost of equity conclusion is severely flawed, as Staff demonstrated in its Initial Brief. Staff IB at 89-91.

SBCI claims that Staff's DCF cost of equity analysis understates the cost of capital because it was based on a group of incumbent LECs and, thus, does not reflect "full" competition. SBCI IB at 75. SBCI further claims that "the non-constant growth DCF model that SBC Illinois used in its proposal" better reflects investors' required rate of return. Id. These arguments are disingenuous and factually incorrect. First, both SBCI's original and updated cost of equity analyses also use samples comprising incumbent LECs. Staff IB at 79. Second, as explained previously, FCC directives do not require the cost of capital to reflect "full" competition, contrary to SBCI's continued claims. Third, SBCI did not use a non-constant growth model to derive its proposal. Rather, SBCI presented what it alleges to be a non-constant growth DCF analysis only as a rebuttal to Staff's DCF analysis. SBCI Ex. 12.1 at 11-12. Not only was that analysis not used to derive SBCI's proposal, it is impossible to determine whether that analysis is a non-constant or constant growth DCF analysis, since Value Line does not indicate the growth rates reflected in the terminal stock values SBCI used. Staff 31.0 at 19. SBCI *assumes* that the growth rates incorporated in those terminal stock values

differ from those used in the first stage of the model, but has presented no evidence to that effect. As Staff explained, those terminal stock values might as easily reflect *lower* required return projections as they could higher growth rate projections in the terminal stage. Id. at 19-20.

(2) Response to Joint CLEC's Initial Brief

The Joint CLECs claim that Staff's cost of equity estimate is excessive because the analysts' five-year growth rates used in Staff's constant growth DCF model noticeably exceeded forecasts of long-term economic growth. Joint CLEC IB at 136. This argument is without merit, as Staff fully explained in its Initial Brief. Staff IB at 82-84.

The Joint CLECs claim that Staff's estimate of the current equity risk premium is flawed because the market return requirement is based on a constant growth DCF. Joint CLEC IB at 136. This contention was fully addressed and rebutted in Staff's Initial Brief. Staff IB at 84-86.

The Joint CLECs suggest that some of the seven companies in Staff's Telecom Sample do not provide appropriate measures of the cost of capital for UNEs. Joint CLEC IB at 137. This claim should be rejected, for the reasons set forth in Staff's Initial Brief. Staff IB at 84.

e) Cost of Capital - Conclusion

Staff's overall cost of capital recommendation, incorporating Staff's recommended cost of short-term debt, cost of long-term debt, cost of common equity, and capital structure equals 8.62%. Staff Ex. 12.0, Schedule 12.1. SBCI's and the Joint CLECs' Initial Briefs do not invalidate that conclusion. Therefore, the Commission should adopt Staff's

recommendations in toto, as presented in the table below, to set UNE prices in this proceeding.

Capital Component	Percent of Total Capital	Cost	Weighted Cost
Short-term Debt	4.78%	1.47%	0.07%
Long-term Debt	44.22%	4.99%	2.21%
Common Equity	51.00%	12.44%	6.34%
Total Capital	100.00%		
Weighted Average Cost of Capital			**8.62%**

C. Other Loop Recurring Cost Modeling And Input Issues

1. Cable and DLC Installation Costs/Factors

The Company's discussion of this issue reflects a fundamental misunderstanding of Staff's proposed adjustments to these costs. The Staff proposal seeks to address a fundamental problem with SBC's calculation of installation factors which is a reliance on historical, embedded cost relationships for an existing network to develop costs associated with constructing a new, forward-looking network based on TELRIC cost principles. As Staff has fully demonstrated, the Company's embedded cost approach, by definition, overstates costs and drives up UNE rates. What the Staff adjustment seeks to accomplish is to minimize this overstatement of costs by selecting the individual historical relationships that produce the lowest installation factors.

SBC seeks to rebut this Staff position not with an argument, but rather with a single, unsupported assertion. SBC's Initial Brief simply states: "As Mr. Smallwood testified, however, there is no reason to expect (and Mr. Lazare presented no evidence) that the relationship between the costs of cable material and the costs for installing cable for a recent three year period is likely to change." (p. 80) This assertion is simply

incorrect. Despite SBC's denials, Mr. Lazare did, in fact, clearly demonstrate that historical costs should not be used to project cost relationships in a TELRIC environment. Furthermore, regardless of what Mr. Lazare presented, the Company's approach is clearly flawed by definition. Historical, embedded costs and TELRIC costs fundamentally differ from each other. To use unadjusted embedded costs as a proxy for TELRIC costs with little or no explanation is clearly incorrect. Furthermore, as Staff witness Lazare has demonstrated, SBC's reliance on historical data that includes the costs to expand and reinforce the existing network serves to overstate installation factors and produces inflated costs. Id. at 27-28.

SBC, for its part, seeks to establish the reasonableness of its installation factors by stating that the use of more recent historical data (2000 through 2002) would produce even higher installation factors (p. 80). What the Company conveniently ignores is that this approach still relies reliance on historical data that includes the costs to expand and reinforce the existing network. Then, the Company takes Staff to task for not using the most recent year 2001 in all of his installation factor calculations (p. 80). Again, SBC fails to grasp the Staff argument that all of the historical cost relationships used by both the Company and Staff overstate costs and the Staff objective is not to use the most recent set of flawed data, but rather select the data that produces the least amount of flaws.

Finally, the Company makes a belated effort to justify the inclusion of costs to expand and reinforce the existing network in its TELRIC study (p. 81). The Company argues that even in an efficient network there will be a need to augment and reinforce facilities on a going-forward basis (p. 81). The Company then goes on to assert (without

evidence) that it has functioned in an efficient manner and therefore all of the reinforcement costs reflected in its installation factors are appropriate (p. 81). Again, the Company has failed to consider the implications of TELRIC in its argument. The reinforcement costs used by the Company are based upon a network that has been installed over a long historical period, reflecting the level of knowledge that existed in the past. A TELRIC study seeks to capture the cost of constructing the network today, based on current knowledge, on a going-forward basis. It is unreasonable to assume that the network constructed today would require anywhere near the level of augmentation and reinforcement as the network that SBC has constructed over a number of decades. SBC's argument on this issue stands logic on its head.

In sum, the Company has offered no arguments in its Initial Brief to undermine the reasonableness of Staff's proposed adjustment for installation factors. If anything, the Staff proposal should be considered as a conservative adjustment to a clear overstatement of costs.

2. Copper/Fiber Crossover Point

SBC supports its own proposed crossover point as being consistent with the cost study used to establish the UNE rates approved in Docket 96-0486/0539 (Consolidated). SBC IB at 102. Staff takes exception to this statement. In the 96-0486/0539 proceeding the methodology employed in AFAM to determine whether fiber or copper feeder was to be used in the network design was entirely different than the methodology used in LoopCAT in this proceeding.[22] It is an apples-to-oranges

[22] See Schedule JRS-5 to SBC Ex. 4.0 (Smallwood Direct Testimony). The determination as to whether (continued…)

comparison, and does not reflect a Commission determination as to the appropriate crossover point in this proceeding,

SBC argues that Staff's proposed 18kft crossover point is inappropriate by contending that the technical breakpoint for standard xDSL services is approximately 17.5 kft because load coils are necessary to maintain adequate transmission at 18kft and beyond. SBC IB at 102. It is not clear what SBC is trying to argue with this point, or what its implications to Staff's proposal might be. Staff's recommended crossover point is wholly consistent the 18kft limitation. Under Staff's proposal, fiber feeder would serve all loops at or beyond 18kft. SBC appears to be trying to imply that Staff's crossover point should be adjusted to 17.5kft because one of its witnesses testified in surrebuttal testimony that is the *approximate* break point for certain xDSL services. It appears that SBC is merely trying to confuse the record with this argument and, therefore, it should be ignored.

SBC also argues that its network is engineered to offer higher speed services than what Staff's proposed crossover point will allow. SBC IB at 102-103. SBC supports this argument by indicating that it is already offering services operating at 6mbps, and that Project Pronto was designed to offer 1.5mpbs transmission speeds. *Id*. Staff is troubled by these arguments, because they seem to imply that Staff's proposed crossover point yields a network that is not adequate to support the services that SBC currently provides or intends to provide in the foreseeable future. Although it may be true that SBC can currently offer 6mbps service to some of its customers, SBC

(continued from previous page)
fiber feeder or copper feeder was to be employed in AFAM was based on the length of the feeder cable, and not on the total loop length, as is the case in LoopCAT. As such, there is no direct comparison between crossover points between the two models.

provides no evidence to suggest that its actual network can provide such robust service to a significant number of its customers. Further, it is Staff's contention that the 18kft crossover point that it proposes is forward-looking and capable of handling higher transmission speeds than SBC's current network. Although it is implied, SBC falls short of explicitly stating that the network produced by Staff's crossover modification is not capable of supporting the services that SBC currently provides or intends to provide. The fact that some customers can currently obtain a very high speed of data transmission is no indictment of Staff's proposal, and is a very weak argument.

SBC's use of the Project Pronto design as an indication of the type of service it plans to provide to all of its customers is unpersuasive. Project Pronto, in fact, was not designed to carry 1.5mbps service to all of SBC's customers, but rather to upgrade certain areas within the network so that such capabilities could be extended to 80% of its customer base. This is in stark comparison to SBC's proposed 12kft design, which would extend this level of service to all of its customers in Illinois, regardless of cost. The Project Pronto example, consequently, only serves to support Staff's assertion that SBC's proposed network in LoopCAT greatly exceeds the company's forward-looking plans.

SBC attacks Staff witness Mr. Koch's assertion that the company does not install loop plant in a manner that fiber crossover is restricted to 12kft. SBC IB at 203. SBC claims that Mr. Koch misinterprets SBC's response to Data Request RK 1.14(c). In particular, Mr. Koch relies upon the following response from SBC in RK 1.14(c): "in general, the lengths of copper network for new plant will be limited to approximately 12kft, except in those particular relief plan or new deployment where a financial analysis

might yield a different solution." *Id*. SBC argues that the term "different solution" in that response may be a crossover point lower than 12kft. Whether that "different solution" may be less than 12kft in some circumstances is immaterial. That particular data request response clearly indicates, and Staff witness Mr. Koch properly interpreted, that SBC relies upon financial analysis rather than engineering guidelines when it determines whether fiber feeder is needed for a particular placement of loops.

SBC further argues that Staff witness Mr. Koch ignores the response to RK 1.14(b) in his analysis. Although it is true that Mr. Koch did not cite to that particular response, it is not true that it was ignored in the analysis. Mr. Koch properly disregarded this information based on the fact that it added no new information to this proceeding. Nor did it provide an appropriate response to the question that was asked. The request was as follows:

> b. Please state whether the 12kft crossover point used in LoopCAT is the most efficient design for the network, and explain in detail why this is the case;

The response to this request was:

> Because loop lengths in excess of 12,000 feet are not consistently capable of supporting many of the services currently demanded, the forward-looking design calls for 12,000 feet of copper or less in the loop plant. This design is consistent with carrier serving area guidelines that have been in p*l*ace since the early 1980s.

Staff's request was for a detailed explanation as to why SBC believes that the 12kft crossover point is the most efficient design. SBC's conclusory response does not even attempt to respond to Staff's request regarding efficiency, but rather only alludes to the fact that customers want more services than what a longer loop can provide. Nor does this response constitute anything near a detailed explanation. As such, this data request response was, in fact, non-responsive and thus useless in assisting Staff in

determining the appropriate crossover point from an efficiency standpoint. SBC is grasping at straws in its attempt to discredit the plain conclusion that Mr. Koch derived from its response to Staff Data Request RK-14(c). The facts are that SBC admitted that financial considerations cause it to veer from the 12kft crossover point guideline in response to Data Request RK-14(c), and that the response to Data Request RK-14(b) does not speak to efficiency concerns at all.

SBC also supports its argument for the 12kft crossover point based on a ruling in the Virginia Arbitration Order. SBC IB at 102, 104. Staff witness Koch discussed why the Commission should not put too much weight on this arbitration decision in his rebuttal testimony. Staff Ex. 24.0 at 10-13. Staff reiterates at this time that the FCC Staff acted on behalf of the State of Virginia, and its decision is not binding precedent for any other state. Further, the order only addresses the specific circumstances of Verizon in Virginia, and not to the circumstances of SBC in Illinois.

3. Other DLC Investment Cost Issues

a) Remote Terminal Cabinet Sizes

Staff witness Mr. Koch erroneously referred to SBC's DLC vendor as being Lucent Technologies in his direct and rebuttal testimony. As SBC notes, Alcatel is SBC's vendor of this equipment and not Lucent Technologies. SBC IB at 107. Mr. Koch's reference was obviously intended to be for Alcatel, as the error was merely an inadvertent oversight. Staff acknowledges that Mr. Koch should have referenced Alcatel as SBC's vendor.

SBC provides several examples of why it would be inefficient to maintain RT cabinets in sizes other than those utilized in LoopCAT. SBC IB at 108-109. Although

SBC's examples may include plausible additional costs that might be incurred with the inclusion of additional RT types, SBC did not produce any evidence to show that these costs would outweigh the efficiency gains that one would reasonably expect to occur. Rather, SBC relies upon this anecdotal evidence to satisfy its burden of proof. Simply put, such evidence is not sufficient. In other words, SBC has again utterly failed to carry its burden of proof. *See* 47 CFR § 51.505(e) ("An incumbent LEC must *prove* to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element") (emphasis added). Until SBC can demonstrate that the additional costs it has identified are significant, Staff cannot overlook, for the purpose of developing a forward-looking network, the fact that equipment is available in the marketplace that may improve their efficiency.

The only cost data provided in this section by SBC is from witness James Smallwood's rebuttal and surrebuttal testimony, concerning the per unit of capacity costs of various RT types. SBC IB at 109, SBC Ex. 4.1 (Smallwood), at 76, and SBC Ex. 4.2 (Smallwood), at 18. As argued by Staff witness Mr. Koch, this per unit of capacity argument is misplaced. Staff Ex. 24.0 (Koch), at 4. What matters in terms of efficiency is the total investment per unit of demand. *Id*. As long as the total cost of a smaller RT is lower than that used in LoopCAT to serve a particular customer base, the cost per unit of demand will be lower for the smaller RT. Such an arrangement would cause the cost per loop to decrease and, therefore, be considered more efficient than what is currently modeled in LoopCAT. It is a straightforward argument, based on a reasonable assumption. Because it is reasonable to assume that there is a more appropriate mix of RT sizes available in the marketplace than what is modeled in

LoopCAT, Staff finds that it is imperative that SBC demonstrate that its choice of RT equipment is optimum. The burden of proof, as noted above, is squarely on SBC to make such a demonstration.

b) Alcatel Discounts

c) Mix of Universal Digital Loop Carrier ("UDLC") and Integrated Digital Loop Carrier ("IDLC") facilities

d) Number of Remote Terminals Per COT

e) Calculation and Application of Building Cost Factor

f) Allocation of Shared DLC Components

g) Remote Terminal Investment Cost Allocation

SBC argues that the Staff and Joint CLEC recommendation that 25% of common investment in remote terminals should be removed from LoopCAT should be rejected because it mistakenly assumes that the RT's used in the cost study are DSL capable. SBC IB at 122. SBC goes on to list several pieces of additional equipment that would be necessary to make the RT's modeled in LoopCAT DSL capable. *Id*. at 122-123. Staff does not disagree with SBC's assertion that additional electronics beyond the equipment used to develop unit investment cost in LoopCAT are needed to provision DSL. Rather, the crux of Staff's argument is that the *common* equipment in the RT is designed so that data services can ultimately be provisioned, and that forcing recovery of 100% of those joint costs solely on voice services is simply not appropriate. Indeed, SBC's argument for a greater mix of this RT equipment in LoopCAT is predicated on the assertion that it is needed to enable the wide-spread provision of advanced services, but then argues at the same time that a portion of the cost of this equipment

should not be allocated to the advanced services it was installed to support.[23] This is clearly inappropriate.

SBC also argues that it would only be appropriate to allocate common costs to data services if every RT in the forward-looking model were configured to provide DSL. SBC IB at 123. SBC contends that not every RT will be equipped to provide DSL. Although this may be accurate, it is inconsistent with its argument that it must maintain a strict 12kft crossover point so that the forward-looking network is advanced services capable throughout its network. The company cannot have it both way. Either it is designing a network with ubiquitous capabilities or it is not. If SBC is to make this argument credible, it must also demonstrate why it would continue to be efficient to use RT's throughout the modeled network. Again, SBC must carry its burden of proof by providing more substantial evidence than anecdotal complaints to support its claims. SBC has done neither, and as such, its argument must be rejected.

SBC attacks Staff witness Mr. Koch's use of the 00-0393 cost study as support for the allocation of 25% of common costs to data services. SBC IB at 124-125. SBC's arguments are red herrings. Regardless of the status of that case, or whether certain aspects of the cost study have been revised, nowhere does SBC indicate that the design of the network in these studies is inappropriate. Staff cites to this study as conclusive evidence of SBC's forward-looking allocation of RT equipment. SBC, again,

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[23] See SBC Initial Brief at 101, where SBC vigorously defends its choice of a 12kft crossover point: "As Mr. White testified, in designing and building a forward-looking network capable of handling multiple service needs, including voice and advanced data services, the engineer must balance the service needs projected for the area being designed with the transmission parameters needed to make those services work. SBC Ill. Ex. 8.0 (White Direct) at 28; SBC Ill. Ex. 8.1 (White Rebuttal) at 60. Based on these considerations, SBC Illinois' network engineers have determined that 12kft is the appropriate crossover point. *Id."*

has provided no compelling evidence in this proceeding suggesting that this allocation is not appropriate.

4. Premises Termination Costs

a) NID and Drop Wire Installation costs (Including Travel Times)

The Company presents a convoluted argument in support of its proposed travel times for network installers. According to the Company, the ***BEGIN CONF XX minute END CONF*** time estimate reflects "the average amount of time for all jobs in a day, including travel from the garage to the first job and travel back to the garage from the last work site of the day. SBC IB at 126. Furthermore, the Company claims that the travel time must be adjusted upwards to include the time associated with setting up work area protection, contacting the customer and retrieving tools and supplies from the truck. *Id*.

There are a number of deficiencies in the Company's argument on this issue. For one, the Company fails to indicate how many installations a technician would travel to over the course of a day. Mr. Smallwood tried to answer that question in rebuttal by suggesting the technicians would make two installations a day:

> The travel time used in the cost study was developed assuming that the travel includes actual driving time from either the garage in the beginning of the day or from the last work site if this is the second job.

SBCI Ex. 4.1 (Smallwood Rebuttal) at 86.

This statement raised an interesting issue. The Company estimates that each installation takes less than two hours including travel times (***BEGIN CONF XXXX hours END CONF*** to be exact). Staff Ex. 3 (Lazare Direct) at 38. If only two are done

per day, how would an installer explain his activities for the rest of the day when his installations are completed?

In fact, Staff argued that an installer could squeeze in two more installations for the day and still work less than eight hours. And if the technician installed four drops in a day, that single round trip to the shop could be divided among four jobs and the travel between the first, second, third and fourth installation would be calculated in a different manner. Accordingly, Staff developed revised travel time estimates based on one ***BEGIN CONF XX minute END CONF*** roundtrip between the Company's facilities and an installation area, with shorter travel times from one end user's premises to the next.

Realizing it may not make sense to assume that a technician installs only two drops in a day, the Company backed off that contention in its Initial Brief and left open the possibility that more installations would be completed in a day. See SBC Ex. 4.1, pp. 44-45. However, the question that SBC's Initial Brief fails to answer concerns how many installations the Company assumes a technician makes during the course of a day. If it is not two, is it three or four? The question is important because it determines how many jobs the travel back and forth to the shop will be divided over. Dividing that travel time over four installations produces a considerably lower number than dividing over two installations as Mr. Smallwood suggested in rebuttal.

The Company's effort to justify the inclusion of additional activities beyond actual travel into the calculation of travel times is unwarranted. The contribution of these items to the Company's time estimate is questionable at best since they were not mentioned in response to Staff's data request seeking all support for this time estimate. *Id*. at 13-

14. Furthermore, the Company's new support is suspect on its face. While now advancing customer contacts as a component of its time estimate, SBC does not explain why its installers could not contact customers by cell phone while traveling from the shop or from one worksite to the next. *Id*.

The Company also seeks to rebut Staff's argument concerning customer installations in a TELRIC environment. Staff had argued that customers in a neighborhood could be hooked up to the network at the same time under the TELRIC assumption of constructing the network on a going-forward basis. If, for example, the installer is connecting service in a subdivision, Staff had argued that it should take considerably less than five minutes to travel from one home to the next. If the installer is connecting service for two customers in a duplex, the travel time would be even less. In a TELRIC framework it would be difficult to conceive how technicians would take more than five minutes of travel time between premises for installing customer drops. Staff Ex. 3 (Lazare Direct) at 31-33.

The Company sought to counter this argument as follows:

> As Mr. White explained, in the real world, customer[s] rarely, if ever, coordinate their requests for a service in a way that would enable a technician to walk from one house to the next in the manner envisioned by Mr. Lazare.

SBC IB at 127. The problem again is that the Company fails to understand TELRIC principles. TELRIC does not mean basing costs solely on historical experience in which a network is built up over many decades. Rather, it assumes the network is being constructed today. Customer drops are part of that network. So it is eminently reasonable to assume that customers in a neighborhood can be hooked up at the same time under TELRIC.

In sum, the Company's efforts to justify its proposed travel times over the Staff alternative are confused and contrary to TELRIC principles. The only reasonable alternative for the Commission is to adopt the shorter and more reasonable travel times proposed by Staff.

b) Adjustment to Remove Double-Counting

c) Mix of Aerial and Buried Premises Termination

d) Multiple Dwelling Units

5. FDI Costs

6. Distribution Area Modeling

7. Loop Length, Cable Size and Cable Gauge Modeling

a) Distribution Lengths Over 18,000 feet

b) Data Used to Develop Loop Lengths

c) Distribution Cable Resistance Limits

d) Allocation of Copper Cable Inventory Between Feeder and Distribution Plant

e) Copper Cable Mix

f) Cable Sizing

8. Planning Period

9. Previous Methodologies

10. Agreed Upon Issues

a) Controlled Environmental Vaults

b) Feeder Stubs

c) Adjustment to Remove Double-Counting of Distribution Terminal Costs

d) Building Entrance Facilities

e) Mix of Residential and Business Premises Terminations

f) Non-Chicago Sales Tax

IV. Non-Recurring Cost Studies And Rate Designs

A. General Issues

1. TELRIC Standards/Principles

The Staff stands on the arguments it made in its Initial Brief. *See* Staff IB at 135 *et seq*.

2. Cost Causation and Characterization of Costs

The Staff stands on the arguments it made in its Initial Brief. *See* Staff IB at 137 *et seq*.

3. Treatment of Technology

4. Use of Subject Matter Experts

The Staff stands on the arguments it made in its Initial Brief. *See* Staff IB at 1359 *et seq*.

B. Service Order Nonrecurring Cost Studies

1. Identification of Tasks

2. Activity Times

3. Occurrence Probabilities

4. Service Order Computer Processing Costs

5. Fallout Rates

The Staff stands on the arguments it raised in its Initial Brief. *See* Staff IB at 148 *et seq*.

6. Other Issues (Including Rate Design)

C. Provisioning (Loops and EELs) Nonrecurring Cost Studies

1. Identification of Tasks

As Staff explained in its Initial Brief, there is no question that those SBC personnel that actually perform SBC's provisioning work are well qualified to describe SBC's current processes and procedures, and are also well qualified to address potential technological and cost related adjustments to these processes and

procedures. Staff IB at 146. The failure of SBC to produce its provisioning exports as witnesses in this proceeding, in conjunction with the failures of the witnesses SBC did supply, has resulted in circumstances where it is impossible to verify whether SBC's nonrecurring studies are correctly formulated. Staff IB at 146. As a result, Staff recommends that the Commission adopt as interim rates subject to true up SBC's proposed rates with the adjustments proposed by Staff below and with any intervenor proposed adjustments the Commission finds appropriate. Staff IB at 147.

With respect, to intervenor proposals, and the Joint CLECs proposals in particular, the Commission is left in a decidedly difficult position. The Joint CLECs have demonstrably spent considerable time and effort reviewing SBC's studies and, as a result, have proposed numerous adjustments to SBC's nonrecurring physical provisioning studies. See generally Joint CLEC IB at 253-293. In the vast majority of instances the CLECs have presented adjustments to remedy instances in which SBC has failed to provide adequate support for its estimates or where SBC's witnesses have presented confusing and/or contradictory testimony. "[A]s with most of SBC's SME labor time estimates, the cross-connect times are unsupported by a systematic analysis, making it impossible to audit how the estimates were derived." Joint CLEC IB at 258. "SBC's own cost study is directly contradictory to the testimony of Ms. Gomez-McKeon[.]" Joint CLEC IB at 262. This approach, to a limited extent, is a product of SBC's failure to meet its burden of proof obligations in this proceeding.

Nevertheless, when proposing adjustments, CLECs have predominately and repeatedly made recommendations based on the "experience" of their witnesses. This experience at various times consists of performing similar work activities, observing

similar activities, reviewing costs studies for similar activities, and or speaking with others who have a familiarity with such activities. *See, e.g.*, Joint CLEC IB at 259, 263, 265, 270. As these latter examples, indicate, the Joint CLEC proposals predominately suffer the deficiency --- identified by Staff when reviewing SBC's estimates --- that they are not supported by a witness who can explain firsthand the basis for these activity time estimates. Furthermore, while these witnesses may have first hand experience with some provisioning processes and procedures used to provide UNEs, they certainly do not have firsthand experience with all of these processes and procedures nor do they have first hand experience with provisioning such UNEs in Illinois. *See* SBC IB at 161-162.

The deficiencies in the CLEC filing are not unexpected. As noted by Staff in its Initial Brief, the FCC citied asymmetric access to cost data as the reason for imposing the burden of proof on ILECs in UNE rate proceedings. Staff IB at 28. Thus, the responsibility for the fact that the Commission is faced with competing estimates, each lacking sufficient support, thus falls squarely on SBC, and its failure to supply witnesses able to adequately explain its nonrecurring activity time estimates. Had SBC supplied such witnesses, parties to this proceeding would have been able to use their witnesses' expertise to discern what activity or activities SBC is estimating costs for, and whether such costs are TELRIC compliant. The failure of SBC to produce its provisioning experts as witnesses in this proceeding, in conjunction with the failures of the witnesses SBC did supply, prevented this process from occurring.

As noted above, Staff recommends that the Commission adopt SBC's proposed provisioning nonrecurring rates with the adjustments proposed by Staff, as interim rates

subject to true-up. The Commission could, based on SBC's failure to carry its burden, elect to order the CLEC adjustments be made in order to derive proxy estimates to be effective until such time as SBC provides evidence sufficient to support permanent nonrecurring rates. In numerous instances, however, there is simply insufficient evidence to verify whether implementation of the changes proposed by CLECs, based on their witnesses' experience, will result in nonrecurring cost estimates that more closely align with TELRIC rules or not. For this reason, Staff does not affirmatively recommend that such changes be ordered at this time.

There are, however, certain changes proposed by the Joint CLECs that Staff can affirmatively recommend the Commission order for the purposes of establishing interim rates. In particular the Commission should adopt: (1) the Joint CLEC's proposal to set standalone UNE POTS loop Field Operations Group (FOG) activity times for establishing cross connects at the Main Distribution Frame (MDF) and the Intermediate Distribution Frame (IDF) to three minutes each, Joint CLEC IB at 261; and (2) the Joint CLEC's proposal to set the task occurrence factor for FOG establishment of cross connects at the IDF to ***BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL*** percent. These changes are discussed below in sections IV.C.2 and IV.C.3, respectively.

2. Activity Times

SBC proposes activity times for provisioning of standalone UNE POTS loops of ***BEGIN CONF X minutes END CONF*** each for FOG establishment of cross connects at the IDF and MDF, respectively. SBC Ex. 5.1, Schedule KAC-R8, Tab 6.3, at 37 of 100. That is, the sum of FOG establishment of cross-connect activity with

respect to provisioning of standalone UNE POTS loop equals ***BEGIN CONF XX minutes END CONF***. As noted by the Joint CLECs, Ms. Gomez-McKeon testified that, in fact, it does not take ***BEGIN CONF XX minutes END CONF*** for FOG to establish cross connects for standalone UNE POTS loop, but rather ***BEGIN CONF X minutes END CONF*** in total. Joint CLEC IB at 261; Tr. at 1482. Ms. Gomez-McKeon has self-described her purpose in this proceeding as validating and providing "…additional information to demonstrate that the activities, activity times and occurrence factors which were provided for use in the SBC Ameritech Illinois non-recurring cost (NRC) studies accurately reflect efficient network provisioning." SBC Ex. 9.0 at 3. In this instance, Ms. Gomez-McKeon has provided testimony that demonstrates that the cross-connect activity time estimates proposed by the Joint CLECs are more accurate than those submitted by SBC itself. For this reason, the Commission should adopt the Joint CLECs' proposal to set standalone UNE POTS loop Field Operations Group (FOG) activity times for establishing cross connects at the Main Distribution Frame (MDF) and the Intermediate Distribution Frame (IDF) to three minutes each. Joint CLEC IB at 261.

3. Occurrence Probabilities

SBC proposes task occurrence factors for provisioning of standalone UNE POTS loop cross connects at the IDF equal to ***BEGIN CONF XXX END CONF*** percent. SBC Ex. 5.1, Schedule KAC-R8, Tab 6.3 at 37. As the Joint CLECs observe, Ms. Gomez-McKeon testified that it was her understanding that SBC's cost study did not assume that every standalone loop is cross-connected at both the IDF and MDF. Joint CLEC IB at 280; Tr. at 1481. Dr. Currie, the SBC witness sponsoring SBC's physical

provisioning studies, testified that Ms. Gomez-McKeon was the witness responsible for reviewing SBC's physical provisioning studies and for making changes in times and other inputs provided by subject matter experts to ensure that the results produced are reasonable and comply with TELRIC rules. SBC Ex. 5.1 at 47-48. According to her testimony, however, Ms. Gomez-McKeon's review was based on her belief that SBC does not need to establish cross connects at the IDF ***BEGIN CONF XXX END CONF*** percent of the time as reported in its cost study. Thus, either Ms. Gomez-McKeon failed to review the activities actually proposed by SBC to support its provisioning study, or SBC's study contains erroneous information. As a result the Commission should accept Mr. Turner's recommendation to set the task occurrence factor for FOG establishment of cross connects at the IDF to ***BEGIN CONFIDENTIAL XXXXX END CONFIDENTIAL*** percent. This figure is based upon SBC's actual network configuration at this time. Joint CLEC IB at 280. SBC has failed to provide the information necessary to assure that this task occurrence factor is appropriately forward looking. However, this factor certainly has more support than SBC's proposed factor, which is inconsistent with the testimony of the SBC witness responsible for ensuring its accuracy.

4. Fallout Rates

5. Disaggregation of Connect and Disconnect Charges

6. Other Issues (Including Rate Design)

D. Switch Port And Features Nonrecurring Cost Studies

1. Identification of Tasks

2. Activity Times

3. Occurrence Probabilities

4. Fallout Rates

5. Other (including rate design issues)

E. Miscellaneous

1. Special Access to UNE Conversion Nonrecurring Cost Study

2. ULS Billing Establishment

F. Labor Rates

The Joint CLECs state that Staff's position on labor rate issues ignores the critical role excessive levels of non-recurring charges may have upon competitive entry. Joint CLEC IB at 333-334. This is not the case. Staff is very aware that excessive NRCs may constitute a barrier to entry. Staff has identified some excessive increases in NRCs suggested by SBC, and suggested that those may not comport with TELRIC pricing principles. *See, e.g.*, Staff Ex. 6.0 at 9.

However, Staff observes that the Commission is bound by the FCC's TELRIC rules. Section 51.505(b) of the FCC rules defines Total Element Long-Run Incremental Cost as:

> The total element long-run incremental cost of an element is the forward-looking cost in the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC' provision of other elements.
>
> > (1) Efficient network configuration. The total element long-run incremental cost of an element should be measured on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers.
> >
> > (2) Forward looking cost of capital . The forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element.
> >
> > (3) Depreciation rates. The depreciation rates used in calculating forward-looking economic costs of elements shall be economic depreciation rates.

As often the case with economic issues, some TELRIC concepts are abstract. Even where TELRIC concepts are somewhat more theoretically precise, they can be difficult to implement or define in practice.

The notion of long run is one of these concepts. In economic theory, long run refers to a period of time where all inputs into a production process are variable. Economic theory does not state a specific period of years where a production process becomes long run. Lord Keynes' famous quote that "in the long run, we are all dead" is the closest thing to a useful definition. It appears to Staff that the Joint CLECs' argument on labor rates reduces itself to the notion that in the long run all costs are variable. Therefore, SBC's labor rates will become market based in that time frame. Market based rates therefore should be the basis for determining SBC's forward-looking labor rates. These are the labor rates that should be used as cost inputs for determining SBC's non-recurring charges.

Staff believes that, although this argument has a certain theoretical appeal, it does not withstand an encounter with Section 51.505(b), nor with the practical issues associated in rate making. Section 51.505(b) provides that UNE rates are to be based, *inter alia*, on the existing location of the incumbents wire centers, and the use of the most efficient telecommunications technology currently available. A time frame constrained by these factors is not the theoretic long-run time frame contemplated by the Joint CLECs. Rather, it is a forward-looking time frame that describes a world where the provisioning of non-recurring activities will be taking place in an incumbent's wire center. That incumbent's labor resources are currently obtained through a union contract. Just as the rule does not mandate the use of technology that does not exist, it does not appear to Staff that it should be required to assume away the existence of a contract that has been in place for years, and appears likely, within limits, to remain in effect for some time to come. The Joint CLECs have not proffered any evidence that this contract will not be in place in the future. Assuming the on-going existence of the contract does not constitute embedded rate making. Rather, it constitutes a realistic application of the principles outlined in Section 51-505(b).

1. Support Asset Costs

V. Shared And Common Factors

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 189-194.

A. Issues Common To Shared And Common Factors Development

1. Use of New Methodology Generally

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 195-198.

2. Use of Regulated and Unregulated data

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 198-199.

3. Consistency of Numerators and Denominators

4. Productivity and Efficiency

B. Common Cost Factor

1. Development of the Denominator

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 199-200.

2. The 67XX Accounts (Including Retail Cost Adjustment)

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 200-201.

3. Transition Benefit Obligation

SBCI continues to characterize the Transition Benefit Obligation ("TBO"), a cost incurred as a result of pre-1992 transactions, as a forward-looking cost. The TBO is related to a change in accounting methods. Prior to this accounting change, Other Post Employment Benefit ("OPEB") costs were recognized when paid rather than when

earned by the employee. After the accounting change, OPEB costs are recognized when earned by the employee rather than when they are paid. The TBO takes OPEB costs earned by employees but not yet paid prior to the accounting change, and applies them ratably to the period after the accounting change as a temporary "catch up" measure. SBC Ill. Initial Brief, at 232-236. Staff proposes that the TBO be excluded from UNE rates because it is a cost of past operations.

In support of its position, SBCI argues that the TBO is a forward-looking cost because SBCI will continue to recognize the amortization of the TBO. SBCI IB, at 232-234. This argument fails because it is not the financial reporting method that determines the nature of a cost; rather, it is the underlying transaction giving rise to the cost that determines the nature of the cost. The TBO exists only because employees earned compensation for work performed prior to 1992. If work had not been performed prior to 1992, there would be no TBO. Tr. (Dominak Cross), at 429-430. The TBO arises from transactions prior to 1992; therefore, it is not a forward-looking cost.

SBCI also argues that the Staff and CLEC position on the TBO is contrary to Commission precedent. SBC Ill. IB, at 235-236. The Company, however, cites only to Commission orders for precedence that provide for recovery of the TBO under traditional embedded cost/rate of return ratemaking theory. This docket is not about traditional embedded cost/rate of return ratemaking theory. The goal in this proceeding is to set rates which encourage competition. The Company failed to cite to one *relevant* Commission order as precedent. Clearly, TBO is a cost that is in addition to the current TELRIC, or incremental cost. TBO is not incurred in order to produce the next unit of production; therefore, it is not a forward-looking cost.

That SBCI will, until 2008, continue to amortize a "catch up" amount to recognize a past cost, does not convert that cost into a forward-looking one for TELRIC purposes. This becomes even clearer when one considers that the current costs for OPEB costs are included as a forward-looking cost. Therefore, Staff's proposed adjustment to remove the TBO should be adopted.

4. Pension Settlement Gains

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 205.

5. Merger Savings

6. Employee Levels

SBCI takes issue with Staff's proposed adjustment to reduce common expense to reflect a decrease in the number of employees. SBCI argues that Staff has not demonstrated that the headcount change represents a net reduction in expenses. SBCI contends that employees were transferred from SBCI to affiliates and that SBCI will still incur the cost for those employees through charges from the affiliates. SBC Ill. IB, at 241-242.

SBCI's argument is lacking. The evidence demonstrates that the employee level at the end of 2002 was significantly less than during 2001. Staff Exhibit 9.0 (Smith), Sched. 9.3. While the Company contends that some of these employees may have transferred to affiliates and that, as a result, affiliate charges to SBCI would have increased to offset the lower SBCI headcount, this conclusion is speculative.

First, the Company's testimony states only "a *significant number of these* employees *likely* transferred to other SBC affiliates." SBC Illinois Ex. 17.0 (Dominak), at 26 (emphasis added). The Company does not positively assert that all of the headcount

reduction was the result of transfers to affiliates. The Company only states that some portion of the headcount reduction was likely the result of such transfers.

Second, there is no indication that such transfers increased the total number of employees at the affiliates. It is possible that some of the transfers were done to fill vacancies created by other employees who left the affiliates.

Third, even assuming the transfers do have some offsetting effect on SBCI's costs, which the Company has not shown to be the case, the Company presented no quantification of this effect. The Company merely presented a theory whereby there might be some factors that might have some possible effect upon Staff's proposed adjustment. On that basis, the Company argues that Staff's adjustment should be rejected out of hand.

The evidence clearly shows that SBCI's employee levels have declined. Although the Company's primary argument appears to be that: "Staff has not demonstrated that the headcount change represents a net reduction in expenses,"[24] the Staff does not shoulder the burden of proof. In fact, it is SBCI (not Staff) that must carry the burden of proof and prove to the Commission that its employee levels have not declined. *See e.g.*, 47 CFR § 51.505(e) ("An incumbent LEC must *prove* to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element") (emphasis added); *Second Interim Order,* 96-0486/0569 (Feb. 17, 1998), at 34 ("The Company apparently has forgotten that under the Illinois Public Utilities Act, it and it alone, bears the burden of proving that proposed rates are just and reasonable."). The Company, however, presented no evidence to quantify the

[24] SBCI IB at 241.

offsetting effect, if any, of employee transfers to affiliates. In fact, as noted above, SBCI's sole attempt at carrying its burden of proof consists of meekly claiming that "a significant number of employees" may have transferred to affiliate companies. SBC Illinois Ex. 17.0 (Dominak), p. 26; SBCI IB, at 241-42. Therefore, for all the reasons articulated above, Staff's proposed adjustment to reflect lower employee levels should be adopted.

7. Agreed Upon Issues

The Staff stands on its arguments as articulated in its Initial Brief. *See* Staff IB, at 207-208.

a) OSS Testing Costs

b) Tier 1 Remedy Payments

c) Digital Divide Payments

d) Non-Chicago Sales Tax

C. Shared Cost Factor

1. Definition of Wholesale Shared Costs

2. Uncollectible Expense

SBCI takes issue with Staff's adjustment to uncollectible expense asserting, essentially, that uncollectible expense bears no relationship to the revenues that are not collected. SBCI IB, at 244-246. Because uncollectible expense is a function of revenue, Staff recommends that uncollectible expense be incorporated into rates by increasing rates by the percentage relationship of historic uncollectible expense to revenues. Staff Exhibit 9.0 (Smith), pp. 8-11; s*ee also* AG IB, at 27 ("The ***BEGIN CONF XXXX% END CONF*** uncollectible factor used to develop Staff's proposed

UNE rates is much closer to SBCI's actually Illinois wholesale uncollectible percentage reported in discovery in this proceeding and therefore should be adopted.").

Staff witness Mr. Thomas Smith pointed out that, while UNE services are relatively new, a historical record of the relationship between wholesale revenues and bad debts does exist. Staff Exhibit 29.0 (Smith Rebuttal of SBC), at 9 -12. SBCI continues to argue that factors other than the amount of revenue impact bad debts. SBC Illinois IB, at 245-246. However, while other factors might impact bad debts, a history of the relationship between wholesale revenues and bad debts exists, and this relationship should be used to develop a bad debt factor to be applied to the UNE rates, rather then developing bad debt expense as proposed by SBC.

Accordingly, for the reasons noted above, Staff recommends that uncollectible expense be incorporated into rates by increasing rates by the percentage relationship of historic uncollectible expense to revenues.

3. Wholesale Marketing Expense

SBCI takes issue with Staff's proposed adjustment to wholesale marketing expense arguing that because some unquantified portion of its marketing expense is associated with customer information, customer assistance and interconnection agreement negotiation, none of the marketing expense should be disallowed. SBC Ill. IB, at 246-247. SBCI, however, has provided no data to support the claim that marketing expense includes customer assistance and/or customer information expense in addition to selling expense. Neither has SBCI specifically identified the amount of its marketing expenses that are for such purposes. ICC Staff Exhbit 29.0 (Smith Rebuttal), at 13. In other words, SBCI has again utterly failed to carry its burden of proof. *See*

e.g., 47 CFR § 51.505(e) ("An incumbent LEC must *prove* to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element") (emphasis added); *Second Interim Order,* 96-0486/0569 (Feb. 17, 1998), at 34 ("The Company apparently has forgotten that under the Illinois Public Utilities Act, it and it alone, bears the burden of proving that proposed rates are just and reasonable."). Consequently, it remains Staff's recommendation that, because SBCI offers no evidence that it markets UNE services, the marketing cost should not be allowed in UNE rates.

4. Calculation of Wholesale Shared Cost Denominator

In its Initial Brief, SBCI claimed that its methodology for a wholesale shared cost denominator employing a wholesale direct cost percentage "is reasonable and produces valid results." SBCI IB, at 248-249. Staff, however, continues to disagree with SBCI that its methodology is reasonable. In fact, it is Staff's position that such an approach is entirely inappropriate. As Staff pointed out in its Initial Brief, the SBCI proposed wholesale direct cost percentage is understated in that it does not accurately present the wholesale direct costs in proportion to the total direct costs for several reasons. Staff IB, at 214. First, SBCI manipulated different levels and types of data in its calculation of the wholesale direct cost percentage in a manner that is both misleading and unreasonable. In its proposed wholesale direct cost percentage, the SBC Industry Markets ("IM") expense account (internal SBC data) was measured against the regional AIT operating expense (external ARMIS data). Further, in reducing the overall SBC corporate level of IM expense to the regional level of IM expense, SBCI again used SBC corporate level internal data to arrive at the allocation percentage for the AIT

region. Second, the relationship between the SBC IM corporate expense and the regional operating expense for AIT does not accurately describe the relationship between SBCI Wholesale Direct Cost versus SBCI Total Direct Costs.

In addition, the SBCI proposed shared cost denominator (the Common Costs denominator multiplied by the Wholesale Direct Cost Percentage) is grossly understated when compared with the extended TELRIC for UNE services and wholesale services. Finally, if SBCI can prove -- which up to this point it has not -- that there actually are shared wholesale costs (UNE + other wholesale), then it must develop a denominator that includes all UNE direct costs *plus* all other wholesale direct costs. *Id*. On the other hand, if SBCI cannot prove it has shared wholesale costs, Staff recommends that the appropriate formula be as follows:

> (zero/any number + total common costs/total direct costs) * (1 + uncollectible %) = S&C markup

However, if SBCI can prove that it has "shared wholesale costs," then Staff recommends that SBCI develop a "wholesale shared denominator" that includes both UNE direct costs based on extended TELRIC *plus* all other wholesale direct costs. Unless both UNE direct costs and other wholesale direct costs are included in the denominator, then the numerator and denominator will be mismatched and will not provide a reasonable or reliable ratio of shared costs to be applied to UNEs, as Staff has shown in testimony. SBCI, in its Initial Brief, concludes, "Staff's proposal would also be reasonable and SBC Illinois would work with Staff immediately following issuance of the Commission's order to develop such a methodology." *Id*., at 249. Staff recommends that the Commission expressly find that the SBCI proposed methodology is inappropriate and specifically reject it. Staff also recommends that the Commission

accept SBCI's offer to implement Staff's proposed methodology for the shared cost denominator and order SBCI to develop the shared cost denominator methodology advocated by Staff, a number that includes both UNE direct costs based on extended TELRIC plus all other wholesale direct costs.

VI. Annual Charge and Other Factors

A. Annual Charge Factors

1. Adjustments to Maintenance and Other Expense Factors

2. Ad Valorem Factor

3. Capital Cost Factor

B. Investment Factors

C. Support Asset Factors (Including Reclassification to Common Costs)

The Staff stands on the arguments raised in its Initial Brief. *See* Staff IB at 185 *et seq*.

D. Inflation/Deflation Factors

E. Productivity Offset

F. Depreciation and Net Salvage

VII. Imputation and Price Squeeze

A. Response to SBC

SBC opens its discussion of imputation with the following assertion:

> It is not relevant to a *TELRIC analysis* what relationship the resulting UNE rates have to retail rates offered by the ILEC or the retail prices offered by competitors in the marketplace. These are, to use the economic jargon, "downstream" impacts of the price changes. Contrary to the impression created by some parties, the Commission may not lawfully "reverse engineer" the UNE rates produced by this proceeding to avoid any possible collateral impacts. These effects are what they are. [emphasis added]

SBC IB at 258

Assuming SBC's reference to “some parties” includes Staff, this is a gross mischaracterization of Staff’s position and Staff’s recommendations concerning imputation. Staff has not and would not suggest that UNE rates should be “reverse engineered”[25] to meet imputation requirements. Rather, Staff’s position is simply that state law must be obeyed. That is, the Commission should adopt UNE rates in this proceeding that simultaneously meet both TELRIC requirements and are consistent with the statutory imputation requirement (i.e., the requirement that ensures appropriate relationships between SBC’s wholesale and retail rates). The Commission cannot simply ignore the statutory imputation requirement in this proceeding. Nor can the Commission ignore that fact that imputation requirements, properly applied, would require SBC, as a matter of law, to raise its business NAL rates (assuming adoption of SBC’s proposed UNE loop rates).

SBC attempts to question the applicability of imputation requirements to this proceeding. It does so by arguing that UNEs are not “service elements”, as that term is used in Section 13-505.1. This argument is sophistry and must be rejected. First, Section 13-505.1 explicitly requires that imputation tests be satisfied for any SBC competitive service that utilizes "…the same or functionally equivalent non-competitive services or noncompetitive service elements." 220 ILCS 5/13-505.1. Section 13 505.1

[25] Indeed, SBC’s attempts to characterize other parties’ imputation analyses as “reverse engineering” are particularly shameless in light of its approach in this entire proceeding, which appears to reason backward from the conclusion “UNE rates are too low.” This requires, *inter alia*, SBC to construct and recommend an imputation analysis that its business retail rates can pass, whether it is ridiculous or not.

is equally clear in requiring that the imputed costs used in such tests shall include the "…specifically tariffed premium rates for the non-competitive services or noncompetitive service elements, or their functional equivalent, that are utilized to provide the service." Id. The UNE loop unquestionably is the functional equivalent of the key network component of SBC's retail NALs. Thus, SBC's business access lines must satisfy imputation tests utilizing the Commission approved rates for UNE loops.

Second, SBC's position flies directly in the face of the manifest purpose and meaning of the statutory imputation requirements. If adopted, SBC's formulation would nullify the imputation standard. Consider the competitive circumstances: SBC provides retail access line service (NAL) to business customers in Illinois. CLECs compete in provision of that same service primarily through leasing SBC's UNE loops. It is difficult to imagine a circumstance where imputation requirements are more applicable. After all, these requirements are intended to ensure a reasonable relationship between retail and wholesale rates. Any argument that imputation requirements do not or should not apply in this proceeding strains credulity.

SBC's next line of argument concerns the proper application of imputation tests to business NALs. According to SBC:

> A properly constructed imputation test would include all the revenues and costs that make up the complete local exchange service provided by SBC Illinois and CLECs to customers in the marketplace.
>
> SBC IB at 261.

Staff already has demonstrated the fallacies of this position, and stands on the analyses contained in its previous filings. But it is useful to examine again the outcomes SBC's proposed imputation tests would permit for business access lines.

SBC proposes to charge its competitors monthly loop rates that exceed - for every single business loop in Access Areas B and C - the comparable monthly rates SBC charges its own retail customers. For Access Area A, SBC's proposed UNE loop rates are lower than SBC's own comparable retail rate, but in most cases not by much. (Notably, SBC's proposed monthly 2- wire analog rate for competitors is $9.03. SBC charges its own retail business customers $9.49 a month). SBC asks the Commission to adopt its proposed imputation formulations, which would give regulatory *imprimatur* to these proposed rate relationships.

The relationships SBC proposes for its UNE loop and retail business access line rates clearly are outside any reasonable zone. This fact becomes even more apparent when other appropriate costs are accounted for in conducting imputation analyses. At issue here are the retail rates for SBC's business NALs. To compete with SBC for business customers purchasing these NALs, CLECs lease SBC UNE loops, which they connect to their own switches. In this way, CLECs provide dial tone functionality equivalent to SBC's retail access lines. The absolute minimum additional costs (beyond the UNE loop) incurred by CLECs to so compete are switch port and cross-connect costs, since without the port and cross-connects there is no CLEC dial tone. Under SBC's proposal, accounting for these minimum costs causes CLECs' costs to compete to exceed the rates SBC charges its own retail business NAL customers. This is the case for every single SBC business loop customer except those purchasing COPTS and STF Pair at a Time in Access Area A.

SBC's response to this proposed competitive situation is, in effect, to say, "Well, CLECs can still compete because they can make lots of money on vertical services and

various kinds of usage. So, imputation tests that sanction our proposed rate relationships adequately protect competition." This is clearly a spurious argument. CLECs conceivably might attempt to compete under these circumstances, and it is certainly true that vertical services and usage generate high margins. Staff submits, however, that this is not the kind of competition the Commission should sanction. SBC asks the Commission to approve imputation tests that effectively would permit it to reach into CLEC pockets and grab for itself some of the margin - in some cases a very sizeable portion of the margin – that CLECs realize through sale of vertical services and usage. SBC's request for approval of such imputation tests should be denied.

What of SBC's much ballyhooed "dire consequences", *see* SBC IB at 262, alleged to result from SBC's business NAL rates having to satisfy reasonable imputation requirements in this proceeding? The "massive rate restructure" supposedly necessitated by Staff's recommended test is pure red herring. No such restructuring is required under properly formulated imputation tests. Instead, Staff's tests require simply that UNE loop rates remain in a reasonable relationship to the comparable retail NAL rates. In contrast, SBC seeks to charge competitors UNE loop rates that bear no reasonable relationship to its own business NAL rates. SBC therefore is compelled to construct imputation tests (no matter how nonsensical their results) that would permit it to do so. Staff's proper formulation of imputation – unlike SBC's improper formulation – indeed would prohibit imposition of UNE loop rates that, in most cases, exceed considerably the comparable SBC NAL rates. Staff's imputation approach passes the "red face" test. SBC's approach does not.

The Commission similarly can disregard the following canard floated by SBC,

> In effect, the Staff/CLEC approach would require SBC Illinois to reprice its retail business services based on TELRIC principles, rather than on LRSIC principles.
>
> SBC IB at 263

SBC apparently envisions some sort of sequential process whereby UNE rates are set, and then retail rates are determined via the Illinois statutory imputation requirement. Staff's recommended imputation formulation involves no such process, and certainly leads to no such outcome. As previously shown, what is required is a set of rates that simultaneously satisfies TELRIC (on the wholesale side) and imputation requirements (on the retail side). What SBC fails to recognize is that any set of UNE rates that meet TELRIC requirements undoubtedly will fully satisfy properly formulated imputation tests. Indeed, Staff proposes just such a set of rates in this proceeding. In so doing, Staff in no way recommends requiring SBC to "…reprice its retail business services based on TELRIC principles…." as SBC apparently would have the Commission believe.

In Staff's view, SBC is engaged in a rather canny bit of misdirection concerning imputation. First, it proposes UNE loop rates that are not consistent with TELRIC requirements. It then points out that under Staff's (properly formulated) imputation tests, SBC's (significantly inflated) proposed UNE loop rates would cause imputation failures for SBC's current business NAL rates. Voila! Staff's imputation formulation must be wrong. And, SBC's proposed imputation approach must be right because it is the only approach proposed in this proceeding that "works" with SBC's proposed UNE loop rates. Of course, the problem with this rather circular argument is that it violates logic and common sense, and would permit the indefensible results described above.

SBC's Initial Brief further contains this additional characterization of an important Staff argument concerning imputation,

> Staff…contended that [its] narrow form of imputation is required so that CLECs can compete for business customers who do not make many calls or subscribe to central office features.
>
> SBC IB at 263.

This characterization is, at best, incomplete and misleading. Staff actually is pointing out the following fatal flaw in SBC's inappropriate approach to imputation: Section 13-505.1 simply does not permit imputation tests that pass for some customers (or set of customers) and not others. The statute does not permit the Commission to apply imputation requirements in a selective manner. The Commission may not, for example, approve imputation tests that are satisfied only for some, or even most, of the purchasers of retail offering. Imputation requirements apply to the entire retail offering itself. SBC's attempt to read this fact out of the statute fails.

SBC itself appears to be aware of this serious deficiency that plagues its proposed imputation formulation. It attempts the following damage control:

> It would be more consistent with the actual conduct of the CLECs and the operation of this marketplace to look at whether they can compete profitably for customers *overall*.
>
> SBC IB at 264.

This assertion may have some merit as a statement regarding the actual conduct of CLECS. However, it has no merit whatever as a statement regarding the applicability or application of Section 13-505.1. The Commission must apply imputation in a manner

consistent with the requirements of Section 13-505.1. SBC asks the Commission to do otherwise. This SBC line of argument must be rejected.

SBC tries one final, slightly different, tactic. Implicitly conceding that its proposed UNE loop rates might cause imputation failure for at least some of its business NALs, SBC seeks refuge in the existence of resale. Unfortunately for SBC, this argument again comes to grief on the plain requirements of Section 13-505.1. The statute most emphatically does not permit the elimination of imputation requirements for one type of wholesale service, element or functional equivalent (e.g., UNEs) simply because some other type of wholesale service, element or functional equivalent is available to competitors (e.g., resale).

Even if the statute allowed for such lifting of imputation requirements for one avenue of competitive entry in favor of another avenue of entry (which of course it does not), the Commission would be extremely ill advised to accept SBC's argument. If nothing more, CLEC entry through leasing of UNE loops is preferable to resale on policy grounds, as the Illinois General Assembly has found. *See* 220 ILCS 5/13-102(f), 13-103(f) (increased investment in telecommunications infrastructure is desirable and is the state's policy). CLEC entry via deployment of CLEC switches, in combination with leasing UNE loops, is at least partially facilities-based entry. Resale is not. Moreover, resale has not been shown, either by SBC or by the marketplace, to be a viable avenue for large-scale competitive entry. Even if it were permissible under the statute, the Commission would be unwise to forego proper imputation requirements for UNE loops in the hopes that resale ultimately might prove an effective mode of large-scale local competition.

B. Response to Joint CLECS

1. Joint CLECs arguments concerning SBC failing its own test should be discarded

The Joint CLECs address imputation issues at length in their initial brief. *See* Joint CLEC IB at 411-433. The Joint CLECs do not address Staff's imputation analysis in their initial brief. Rather, the Joint CLECs focus on the failure of SBC's proposed UNE rates to pass the imputation tests provided with the tariff filing that initiated this proceeding as well as the imputation tests developed by Dr. August Ankum on behalf of the Joint CLECs.

Staff agrees with the Joint CLECs that SBC's rates do not pass the imputation tests included with the tariff filing that initiated this proceeding. In fact, Staff witness Robert Koch addresses this very fact in his direct testimony, Staff Ex. 4.0. However, SBC has abandoned this test in favor of Dr. Debra Aron's price squeeze analysis. Staff's criticisms of SBC's proposed test stems from a review of Dr. Aron's analysis, and not the initial set of tests provided by SBC.

Staff is not certain why the Joint CLECs have chosen to attack imputation tests that SBC no longer supports. This can only confuse decision makers as they review the record in this proceeding. Staff and Joint CLECsappear to be drawing irreconcilable conclusions regarding SBC's imputation tests. Whereas Staff claims that SBC's imputation tests inflate revenue to the point were its UNE rates would pass the test even if business network access line rates were zero, the Joint CLECs claim that SBC's UNE

rates fail SBC's imputation test. Certainly both parties could not be right. Accordingly, Staff urges the Commission to ignore the Joint CLECs' arguments.

2. Dr. Ankum's proposed imputation test is not appropriate.

The Joint CLECs adopt the imputation tests developed by their witness, Dr. August Ankum, in this proceeding. Joint CLEC IB at 427-432. Staff has rejected Dr. Ankum's proposed tests, for reasons indicated in its initial brief. Staff IB at 28-29. Staff has determined that the Joint CLEC proposed imputation tests yield results that are as absurd as those put forth by SBC. That is, under the Joint CLEC tests, business network access lines in Access Area A and Access Area B would *fail* imputation even if SBC's UNE loop rates were reduced to zero, and would fail in Access Area C unless SBC's UNE loops rates were reduced to $2.52. Id at 28 (footnote). Staff attributes the deficiencies in the Joint CLECs' proposed imputation test to the improper inclusion of nonrecurring charges and retail related expenses. Id. Staff has nothing to add in regard to this issue, and urges that the Commission reject the Joint CLEC's proposed tests.

3. Joint CLECs argument that SBC cannot lawfully increase business network access line rates should be put in its proper perspective

The Joint CLECs indicate that Section 13-502.5(b) of the PUA caps business network access line rates. Joint CLEC IB at 424. The Joint CLECs then argue that, because of this statute, that amount by which UNE loop rates can be increased must be constrained by the imputation test. *Id*. at 425. Staff is also concerned with the potential conflict between statutes in this proceeding. However, Staff is not certain that it would

be proper to suppress UNE loop rates as a solution to this problem. The Commission is charged with developing UNE rates that are formulated according to TELRIC principles. *See, generally*, 47 C.F.R. §§51.503, 51.505. As the Joint CLECs are perfectly aware, the federal courts have specifically determined that the General Assembly cannot intrude upon the UNE ratemaking process. Voices for Choices v. Illinois Bell, 03 C 3290, 2003 U.S. App. LEXIS 22961 (N.D. Ill. 2003), *aff'd* AT&T v. Illinois Bell, 349 F.3d 402 (7th Cir. 2003). The Joint CLECs, having sued to enjoin an act of the General Assembly that improperly inflated UNE rates, cannot now assert that another action of the General Assembly, namely Section 13-502.5(b), should be held to constrain UNE rates.

It is instructive to note that if the Commission were to accept Staff's proposed UNE rates and imputation tests, the Catch-22 identified by the Joint CLECs would be rendered irrelevant. Under Staff's proposed UNE rates, imputation is satisfied and there is no pressure to raise retail business network access lines. Also, as a matter of perspective, under the Joint CLEC proposed imputation tests, this paradoxical situation would remain unchanged even if UNE loop rates were reduced to zero. As was shown previously, the Joint CLEC imputation test is designed in such a way that any reasonable UNE loop rate would cause SBC's business network access line rate to fail imputation.

VIII. Other Legal Issues

A. Preemption, Tariffing and Related Issues

B. Procedural and Evidentiary Issues

IX. Conclusion

WHEREFORE, for all the reasons set forth herein, the Staff of the Illinois Commerce Commission respectfully requests that its recommendations be adopted in this proceeding.

Respectfully submitted,

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